

SHAPING THE SOCIAL HOUSING LANGUAGE IN EUROPE

Case of Lisbon, Rio Seco (Project), Portugal

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Abstract

The origins of Social Housing, begin with increasing urban population that was caused by Industrial Revolution. Large amount of people working in factories, wanted to have affordable living space. Started in England, London it easily spread in other industrial countries like, France, Netherlands, Belgium and etc.

Started in 1914, social housing idea as basic form of living need for workers and after it became more organized in post-war period 1945-1970, it was golden age era of social housing in Europe.

As a case study place, Lisbon, Portugal in terms of housing it went in difficult time. Lisbon made transition from old to new housing formation starting from 1970, as need was rising also scale of the city was growing and finally we get irregular living districts, like Rio Seco.

The dissertation refers to Social Housing problems and solutions in Europe, showing several examples built in different timeline, from 80s until now.

Keywords: Social, Space, Housing, Transition.

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1. Introduction

District of Alcantara, Lisbon
(view from Calvario station) Fig. 1.



Chapter 1. Introduction

1.1 Problem Statement and Aim of the Thesis

Shelter as living space was always important theme in humanity, starting from the first natural ways up to now, where housing became almost scientific field.

As cities were becoming dense, it was urgent need of new type of living with smallest amount of square meters for each family. It became clear that only answer to this new problem was social habitation.

Social Housing as meaning is always different in each country, every European country has its own housing character and approach. As it is closely related to certain social group of people, it can be for poor or for working class or even middle class that need little bit more than regular living space.

To have clear picture about concept of living we must understand general working, functioning methods and mechanisms by observing several countries examples of housing, as well as policies that is ruling this sector. By discussing architectural projects that was built in different countries, will give us more clear view and it will be one of the key parts of dissertation work.

Social housing is not only living space but also politically loaded concept for faster and easier “answer” to people, but maybe we are losing important parts in dialogue between people and government. For better explanation we should see both sides, one which is “governmental answer” and second “architectural answer”.

“**Governmental answer**”, expresses that basic rules and regulations calculated from average human for social housing, which is valuated on papers and basically it is virtually created reality for living. And another side which is “**architectural answer**” that should use space for better quality and living experience and maybe it is better to have enormous free space to achieve that exact feeling or function, thats why it is important to find place’s identity, “genius loci”.

Tools like: “**view**” “**scale**” and “**material**” will be main guide for further architectural intervention at case study place in Rio Seco, Lisbon, Portugal. As any place, also this one has its own identity, scale and historical past, by reviewing each part of it, will let us design space not only for living but also for better life quality and experience.

1.2 Methods

Research document investigates by following the methods: Review literature works which describes and shows several EU country's housing sector examples, thematic publications on web-pages that observes different kind housing types in Europe. By reviewing several projects and analyzing it we will have clear idea about modern architectural solutions and tools.

Architectural methods in case study project is like strategy to show further problematic sides of the place. Another important aspect to define more accurate methods is to understand housing types, what is now and what we need to achieve. As study place has long history line, it is important to investigate urban planning, how it works and how it affects whole city.

Applying this methods in practical project, which is located in Rio Seco, Lisbon, will reshape thinking about Social Housing, in terms of social and architectural way, as for final we will get clear language that can be applied in future.

1.3 Structure of Work

Starting with first chapter it overviews problematic sides of main theme Social Housing and also shows aims of dissertation work.

Second chapter explains concept of social housing and how it works in real life, also modern role in Europe, by looking different examples in housing politics and economics.

Third part is about architectural examples, showing different approach from different country's examples. These international projects are modern solutions in social housing.

Fourth part of thesis refers to Portuguese architectural and social development, how it went through different kind of obstacles. This part is crucial part for further architectural intervention in practical project.

Continuing about Portugal, next chapter is important step to study and overview history of case study place in Rio Seco, Lisbon. Before making step forward it is crucial moment to identify place, as any person has identity also places are different. Using method of "genius loci" which basically means, identity of the place, will help in a further step that is architectural intervention. Basic language, like: "view", "scale" and "material" will be as guiding tools. To summarize, this investigation will provide better solution for project site, as it is located on the limit of natural park, which therefore creates unique personality of the place.

1.4 Timeline

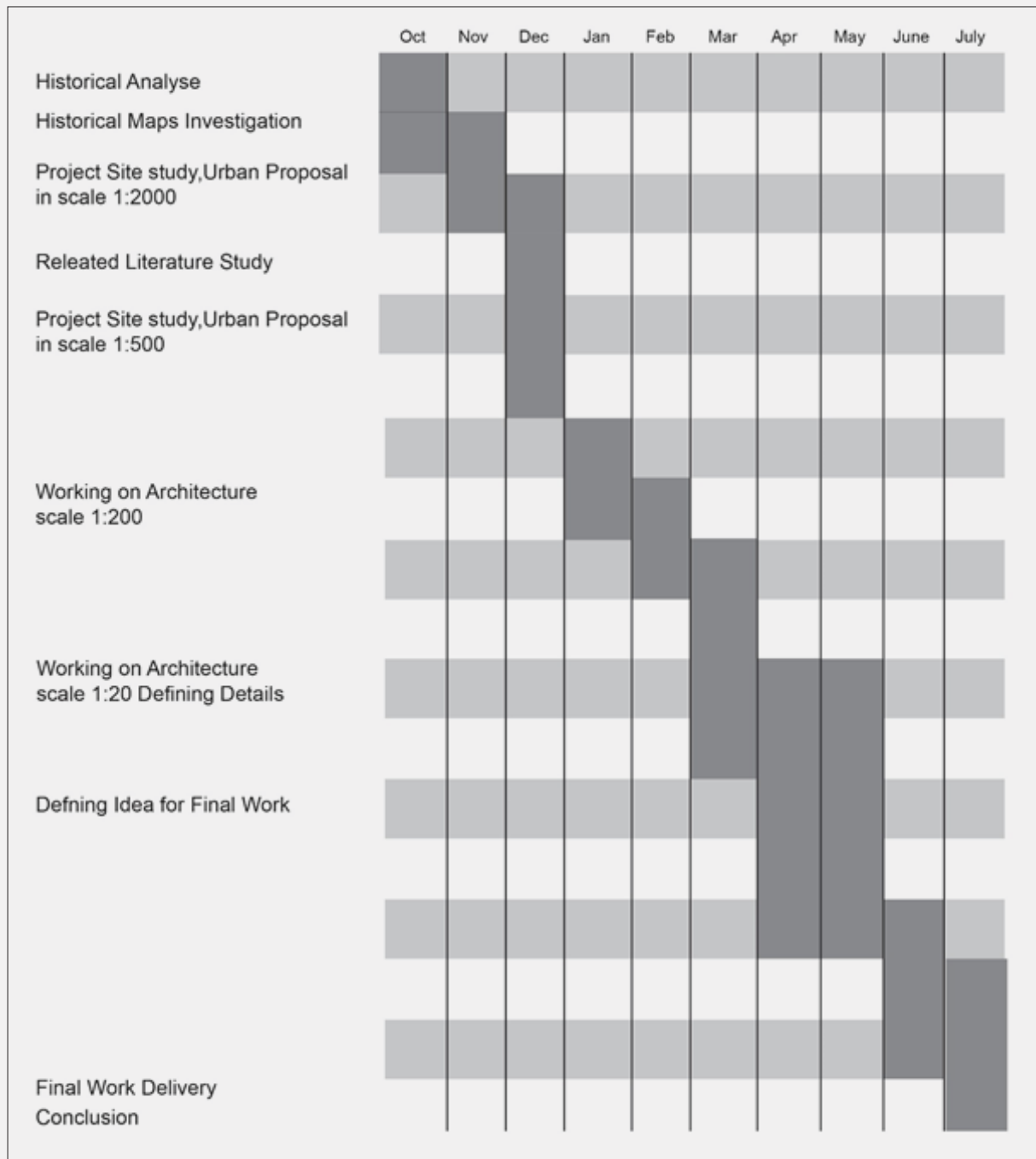


Table 1. Timeline of working process

2. Concept of Social Housing in Europe

Public space in Merida, Spain. Fig. 2.



Chapter 2. Concept of Social Housing in Europe

2.1 Historical Development

Itself social housing as a concept of affordable living for people is unique because it unites many external factors, political, socio-economic and demographical situations. All this, further shapes social habitation policies and regulations, aims and roles for better quality of living.

History of housing development in Europe was in general same, because of the industrial era, but to observe in details every country is unique with different kind of factors related to local specificity of region.

Central and Northern Europe, was step forward in terms of housing development, because in southern part rural settlements was more strongly rooted. Another main factor was delay of industrialization, which therefor was key point in public habitation. First visible and working housing policies arises in the beginning of 20th century up to Second World War, but it was weak and more market forces oriented, living conditions was bad and housing was only for people with low social status.

Situation dramatically changed after 1945's, housing became important subject to discuss, government's involvement was visibly more active. This stage of housing development can be divided into three main parts, which was happening between 1945-1990 years.

1945-60 First Part

As first part was post war period, massive flow of restoration processes was taking part in most Europe's countries, that's why it was called "recovery" period (part). Mainly construction works was financed by public funds. Housing was main aim in this stage of history.

1960-75 Second Part

In this part of development, housing becomes more politically involved, quality and standards are becoming more advanced alongside with urban planning. Housing policies changed according to new needs, it was answering more problems than in first part. This stage of development period called "growing diversity".

1975-90 Third Part

Last period was more open with diverse ideas and concepts in housing development, it was competing more on economic level. Mainly it was caused by changed economic context and as a result it was reduction in social housing expenditure. As it was totally new way this part was called "new realities for housing".

There was many ups and downs in Europe's history of social housing, but as statistics data showed, that was made in near past years was step forward. At the same time every new beginning has its new problematic sides. Last period was quite interesting to observe, because of changing socio-demographic factors in population which therefor created more diverse housing strategies and habitation types. Because of social polarization choice was quite versatile, social housing was not only for low-class people, but for everyone with different income. On the other side still there is problems related to poverty as housing is becoming more valuable for normal income families. This problematic theme makes gap into quality of urban life, and all this issues is still actual and needs to be solved on a governmental level, with better solutions. (UNITED NATIONS, 2006, pp. 1-3)

2.2 Housing in Europe

As cities are growing it creates more and more need for places to live. Every big city is facing this problem sooner or later, need of "housing" that will provide best possible living, but after all the knowledge human race gathered, it is still difficult theme for every country to deal with problem of rising need of living.

Social housing in Europe has long and interesting timeline. As in every country economic and social level is different, still housing concept works same way. In European Union, from all housing, 35% is social. This has led to the claim that Europe is now a 'union of home owners' (Doling and Ford, 2007).

To see clear image it is interesting to understand fact, that homeowners have ownership over 60% of property, which means that they're ruling major part of housing market. Concerning all this information still social housing is different in every country because of many historical factors like, war, social situation, industrial revolution and etc.

Role of the Social Housing is to give people better quality dwelling and better environment in low cost. There is a lot of studies and research about social housing approach in EU, as in Europe there was economic crisis, recent countries changed their thinking into total opposite direction. Aim of this is chapter is to observe as best examples of EU member countries, like Sweden and Denmark in Social Housing sector as well as local region for example Spain, which is more close to related problem. (Christine Whitehead and Kathleen Scanlon, 2007, pp. 4-33)

2.2.1 Denmark

Beginning of 40s and 50s in Denmark was only low-rise living buildings constructed and after 70s as every European country's example also here story was same, building process was becoming more faster and easy. Outskirts of Denmark was growing not also in horizontal but also in vertical way. All these rapid growth of surrounding districts now have social problems and after years of practice country's officials understand that it was not best solution to build in vertical direction, as a result now days almost all housing in Denmark are low-rise and with more small estates.

To provide people with social housing and permission of construction should be approved by local authorities, this rule works from 1994 year, but studies showed that municipalities are avoiding this part not to take responsibilities, because as every step like this, costs money. Interesting fact in this stage is that housing associations are taking advantage to build different kind of social housing, for elderly or for handicaps, this kind of housing for special social needs is 50% from whole housing market in Denmark.

To support social housing sector municipality is not charging income tax, and of course

It is really helpful for further development. Year of 2004 in Copenhagen was made changes regarding building regulations and minimal cost now is DKK 15,075(€ 2024) per square meter, which itself regulates market.

There is two opinions regarding of funding resources, because mainly it's used to renovate housing which in general was built, 1960s and 1970s, as one opinion of municipality it should be used for new construction costs and for housing associations, they prefer to upgrade old buildings for modern life needs.

In Denmark social housing is for everyone from 70s it is becoming more oriented to people with special needs or marginalized groups.

Most of the social housing is located in urban areas, specially in Copenhagen and Aarhus from which 1/3 from all housing is social.

As migration problem is related to any European country also it is big issue here, which is increased between 1994 to 2004 from 12% to 20%, half of this ethnic groups are foreigners.

Renting market shows that social housing sometimes can be more prestiges than private, as indicated in table it's expensive by average 2% (by square meter).

	Avarage rents	Lowest 10%	Highest 10%
Social housing	593(€80)	447(€60)	764(€103)
Privat rented	611(€82)	415(€56)	838(€112)

Table 2. Avarage rents 2005(DKK and €/m²/year) source: book: Social Housing in Europe, by Christine Whitehead and Kathleen Scanlon. 2007

As Denmark is one of the quality housing providers among EU countries, there is big paradox, that's why in this case social housing don't means affordable, because of its high standards and regulations which government is requesting, specially it is visible in Copenhagen and as a result quality means more money to pay per square meter of property. (Christine Whitehead and Kathleen Scanlon, 2007, pp. 44-53)

2.2.2 Sweden

As everywhere in Europe also in Sweden during the 1930s was chaotic period in terms of housing, there was no regulations for controlling this sector. Need for better habitation was rising among people, almost all housing was poor with bad living conditions. After this tough period, social housing as working concept was pointed out. Main steps was done after Second World War in 1945s, basically decision of Swedish Government made further success, they borrowed loan to local municipalities for building high standard housing, that will be for everyone. These massive steps that was made in living quality was visible in further projects with public spaces and parks, it was unique example not only in local region but also among European countries.

Alongside the housing, building process of other social necessary projects like, libraries, housing for older people and other projects were created. From the first obstacles to after war period, Swedish public housing model was created.

"Million Homes Program" was created after 20 years, when need for housing in Sweden again occurred. In all over country building process was going during 10 years. This program not only helped to resolve habitation problem, but it also made better conditions for surrounding environment, created possibilities to develop new technologies alongside housing functions and needs. Overall result was way more than social housing concept as living place, it was universal for everyone.

Main approach for Swedish people in terms of habitation is rental housing system, which is more comfortable for services and everyday life. From 9.5 Swedes 3 million lives in rental. As million homes program was done in past years ago, it needs investments for improving not only living and construction details but also new technologies regarding to less environmental impact. Importance of public housing is getting more and more key point every year in Sweden.

SABO is the organization, which is controlling public housing companies in Sweden. Basically any kind of information regarding housing services or experience exchange, they're providing. Organization was found in 1950s, when housing problem was at its critical limit. It was really helpful for housing companies, which are quite solidary between each other. SABO's effort is really big in housing sector, by providing different kind of tools, trainings or conferences for experience exchange and improving further companies work.

As social housing has big role in Sweden, it is crucial moment to have organization like SABO to answer every problem that are emerging in process of working in this sector.

Rental housing is quite popular, as 3 from 9.5 million swedes prefers to rent apartment. Basically renting process and controle is between landlord and tenant representatives. In this stage governmental side plays neutral role, and ofcourse is there is any kind of problematic issue, national consumer protection is always in service to help. (Christine Whitehead and Kathleen Scanlon, 2007, pp. 148-164)

2.2.3 Spain

It is important to overview social housing in Spain, because as our case study country, Portugal is neighboring it, and it can be considered in same region, also both countries passed same transition to democracy in 70s. After in 80s it was important period again for both countries by entering in European Union. Next devastating moment was economic crisis which impacted Spain in 2008-2009 and of course all this problematic issues affected on peoples life.

Comparing Southern European countries (Spain, Portugal, Italy, Greece) it was more less same situation in terms of social quality of life, more and more people were coming in urban areas to live at same period and problem of habitation was critical.

As we saw in other countries examples like, Sweden and Denmark with best possible examples from EU, situation in Spain it's totally different.

First attempts regarding housing begins at the end of 19th century, need of the social living was emerging. After law about social housing in Spain occurred from 1911 year, with idea of cheap living for working or poor-middle class. In general it was low density habitation planned at city's outskirt areas.

In 1936-1939 Spanish Civil War which was led by monarchist leader Francisco Franco, was in need of mass social housing to inhabit large amount of families. In this period was created several institutions, "Directorate General of Devastated Regions", "The National Institute of Housing" and "Trade Union Work Home" these organizations were regulating housing sector.

Big step forward in development of housing was done in 1954s, by publishing "Rental Housing Act Limited", it was first attempt regarding housing regulations after 70s revolution. There was two types of housing "Reduced" and "Low", first category was from 60 to 100m² and cost was 1000 pessetas per square meter, second category was apartments from 35 to 58 m² with 800 pessetas per square meter. Prices for apartment was limited to 25.000 pessetas, and was regulated by government.

Next major step was to support housing alongside economical development in 1961-1976's. Politics of social housing in Spain was based on economic engine and this approach is used until today, which makes totally different other EU countries.

As Spain is divided into several regional parts and every part is autonomous in terms of regulations and policies, housing issues needs always centralized coordination between them, which is managed by "National Housing Plan" that was established by "General State Lines", their work is to finalize, regulations, guidelines, structure, methodology and instruments.

Social housing in Spain modern times considered as part of whole process with urban and environmental issues, that's why Ministry of Public Works is maintaining new strategies for better working model in housing sector.

Plan of 2009-2012 year was program to change old ways of construction process, because that strategy with massive housing projects was not acceptable, as a solution it was better idea to choose more an intense model of housing, which will use less land property, also it was best way in terms, that it will require more labor to work on projects.

Modern housing concept in Spain still uses old ways to deal with new challenges and it's called "Subsidized Housing", this type of housing has limits of maximum space for each apartment 90 square meters. With all new regulations and programs, regarding habitation problems in Spain, still there is problematic issues to be discussed. (Universitat Politècnica de Catalunya, Pilar Garcia Almirall, collaboration with, Leminar N.Arends Morales, 2012)

3. International Models and Study Projects

Mountain Dwelling, Copenhagen, Denmark
(view from the main street) Fig.3.





Fig.4. Quinta Monroy Social Housing(source: www.archdaily.com)

Chapter 3. International Models and Study Projects

3.1 Quinta Monroy Social Housing

Architects: Elemental - Alejandro Aravena, Alfonso Montero, Tomás Cortese, Emilio de la Cerda

Project year: 2003

Budget: US \$204 / sqm

Area: 5000 sqm

Constructed Area: 3500 sqm

Social housing in Iquique, Chile by Elemental is totally different understanding in this sphere. This is a perfect example how to solve housing problem with minimal budget. Using subsidy of 7500\$ for each unit(family), it is hard to provide normal living space with this amount of money. Land and construction costs will be enough only for 30sqm house.

In project like social housing one of the main aspect is land space, because it's always hard to match quality and price. Basically concept of Elemental design was 1 House= 1 Family= 1 Lot which means that it will be more expanses with isolated houses. With given land it was possible to make houses for 30 families. For more efficient land use, houses were planned in a row.

Best part in this design instead of building small house to build good half house with another half free space for future designing by family, every house owner can finish design as they can afford it. Structure of project will allow further self-construction to be safe without negative effects.

Important aspect is to understand role of social housing, because in Chile will be spent 10 billion dollars in next 20 years, so if this investment will be more creative and smart it can make housing more valuable in time and don't lost price on market. (**"Quinta Monroy / ELEMENTAL"** 31 Dec 2008. ArchDaily. www.archdaily.com)

Fig.5. Mountain Dwellings(source: www.archdaily.com)



3.2 Mountain Dwellings

Architects: JDS Architects, BIG Architects

Partner in charge: Bjarke Ingles for BIG, Julien De Smedt for JDS

Project year: 2008

Area: 33000.0 sqm

The Mountain Dwellings, is a new word in housing concept development. Project consists 2/3 parking and 1/3 living(apartments). First volume entrance level is a parking and on top of it are apartments inclined to south-east façade to create terrace gardens, facing quiet sub-urban landscape. All the roof gardens has central watering system, so it can easily regulate vegetation life. Parking level at north-west façade is covered with metal panels perforated image of mount Everest, at daytime façade looks one solid surface but at night, light illuminates from inside with different colors from parking level. 80 apartments will have direct access from parking level which contains 480 spots for cars.

Every side of the project is different and interesting, specially south-east façade with gardens, it creates shape of mountain and because of inclined green surface it looks ergonomically suited in surrounding environment. To talk about another side of project of course parking area is unique with its huge space, at some places sealing height reaches up to 16 meters, creating more like cathedral feeling. ("**Mountain Dwellings / PLOT = BIG + JDS**" 11 Mar 2009. ArchDaily. www.archdaily.com)



Fig.6. Novo Santo Amaro V Park House (source: www.archdaily.com)

3.3 Novo Santo Amaro V Park Housing

Architects: Vigliecca&Associados

Location: São Paulo, Brasil

Project year: 2012

Project Area: 13500 sqm

Sao Paulo located in Brazil, is biggest city in Latin America. Housing project is quite hazardous in terms of floods and landslides. With area of 13.500 square meters proposal was to make social housing for local families. After was built it had good impact on surrounding urban area.

Interesting fact is that intervention place was irregular not organized green area, instead of making new project which would have totally different reality, proposal is simply using natural urban landscape making linear housing, surrounded by existing irregular informal habitation. Project goes along creating park for local people to communicate, throughout park there is different kind of entertainment places, as for children also for adults, skatepark, school, soccer field, playground.

As project is planned more linear way, people can use to cross neighbourhood, instead of using polluted car road. Closer areas which are different in level is connected with pedestrian bridges, making communication more flexible and easy. Apartment buildings are from five to seven floors high, with different variations, from two to three bedrooms or even duplex. Whole project consists of 200 apartment units.

District where new housing is located represents more informal habitation, that's why all sewage system was in bad condition and was going straight to natural stream, but now condition is way better, water supply comes from different sources. ("**Novo Santo Amaro V Park Housing / Vigliecca&Associados**" 13 Mar 2015. ArchDaily. (Trans. Saieh, Nico). www.archdaily.com)

Fig.7. 20 Social
Dwellings in El
Saucejo(source:
www.archdaily.com)



3.4 20 Social Dwellings in El Saucejo

Architects: Suárez Corchete
Location: El Saucejo, Sevilla, Spain
Project year: 2012
Project Area: 1770.0 sqm
Construction Budget

Project is located in El Saucejo, Spain, 107 kilometers from Seville. Housing is quite compact, planned like one continuous building, which is all white except window details making separation from one to another unit. As site level is different, from bottom to top, that's why houses are planned in pairs to change level every two units. Entering the house there is small terrace/hall shared with another neighbor. On first floor is located living room and kitchen with small backyard and on the first floor is bedroom with view to street. Interesting fact is that backyards are continued by neighboring green fields, which makes perfect environment for living.

Making the project, main goal was for public administration to improve conditions in this neighborhood. Site itself is between agricultural and urban land, which looks like border between them.

Houses are located with backyards facing southeast, which is better for direct sunlight in different seasons and also view is at local hillside nature. Entrance side which is main façade opening are more, small to avoid too much solar radiation in summer, as this part of country is quite hot. Houses are designed to be maximum naturally ventilated, which is crucial point for energy consumption. ("**Social Dwellings in El Saucejo / Suárez Corchete**" 04 Feb 2014. ArchDaily. (Trans. Quintana, Lorena). www.archdaily.com)

Fig.8. Social Housing in Shangan Avenue(source: www.archdaily.com)



3.5 Social Housing in Shangan Avenue

Architects: FKL architects

Location: Shangan Avenue, Ballymun, Dublin, Ireland

Project year: 2013

Project Area: 3746.0 sqm

At first stage, project was defined with several urban analyses to understand site specifications, it was better to continue linear scheme of the street's edge. Itself, whole shape twists and bands by various site conditions for maximum functional as for living also for everyday public activity. This method respects existing surrounding neighborhood. In general housing units are two and a half or three stories high, changing by place to place. Task was to make 42 dwellings from single storey one-bedroom units to three storey family apartment. Important is that whole shape of composition is one form, which is reached by using same materials, like brick walls and concrete tiles for roof. Most of the apartments, have access to private gardens, which makes project more functional among other types of urban habitation. (**"Social Housing in Shangan Avenue / FKL architects"** 25 Feb 2014. ArchDaily. www.archdaily.com)

Fig.9. 43 Public Dwelling
In Almuradiel(source: [www.
archdaily.com](http://www.archdaily.com))



3.6 43 Public Dwelling In Almuradiel

Architects: Estudio Entresitio

Location: Almuradiel, Ciudad Real, Spain

Project Area: 3960.56 sqm

Project Year: 2009

Project is located in El Saucejo, Spain, 107 kilometers from Seville. Housing is quite compact, planned like one continuous building, which is all white except window details making separation from one to another unit. As site level is different, from bottom to top, that's why houses are planned in pairs to change level every two units. Entering the house there is small terrace/hall shared with another neighbor. On first floor is located living room and kitchen with small backyard and on the first floor is bedroom with view to street. Interesting fact is that backyards are continued by neighboring green fields, which makes perfect environment for living.

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Fig.10. Salgueiros Social Housing (source: www.archdaily.com)

3.7 Salgueiros Social Housing

Architects: AVA Architects/Salgueiros Social Housing

Project Architects: Carlos Jorge Coelho Veloso, Gil Miguel Monte Gonçalves, Hélder Manuel Reis Coelho

Location: Rua Cervantes, 4440-452 Oporto, Portugal

Project year: 2007

Project Area: 5848.27 sqm

For Salgueiros district in Porto, it was an important step to design housing for development surrounding urban structure. Location of the site is important, because of various urban scale that surrounds project, it also fills gap between old and new housing types, one side is low-rise single family houses, and another side several stories high living building, that was built in modern time.

Project is composed in two main shapes (housing blocks) and difference between them is height to respond local urban scale, that is changing in every part of the site. As most social housing projects also in this case, because of economic reasons, typology based planning using both sides of building as one side is bedrooms and another side is toilet, bathroom and kitchen. Main entrance to building is located almost at central part of project, but for parking level entrance is located under patio at main street level. (**"Salgueiros Social Housing / AVA Architects"** 05 Sep 2010. ArchDaily. www.archdaily.com)

4. Social Housing in Portugal

Photograph was taken in Lisbon, Portugal
(view from arch.faculty to Ajuda district)
Fig.11.



Chapter 4. Social Housing in Portugal

4.1 Modernity

As in whole Europe, also in Portugal, modernity entered in twentieth century. Especially in architecture it had interesting results. Architects started to design new modern language with local Portuguese practice. Cities like Porto and Lisbon adapted to this new changes, by keeping old familiar, technics, materials, approaches and as result we get new language based on strong national motives.

Social housing was major side of this huge building boom led by modernity. Multifamily apartments, was main proposal for designing new understanding in architecture. First attempts were made in Arabida, Porto 1918 and Arco do Cego, Lisbon 1919. From 1930s housing became more problematic theme, it was hard to control process of building and designing. Cities empty gaps were filled with mid-rise living buildings, which made cities like Porto and Lisbon extremely grow in density. After this period biggest change was, extensions of 1940s neighborhoods in Alvalade, Lisbon by Athoguia & Sanchez in 1949-55. These changes was mainly based Italian architecture influence in Portuguese culture of 1960s.

From 1970s housing became suburban concrete jungle, outskirts of Lisbon and Porto was growing, building process was fast and dense more economical and social oriented, Main reason of Urban expand was population growth in cities, working class people wanted minimum of living area, which was perfect base for social housing concept development. As a result in Lisbon there is diverse types of housing created in this period, which has unique Portuguese architecture style.

Another big issue in Portugal is enormous rise of dwellings. Beginning from 70s there are more dwellings than families to live there and this number is increasing every year. Fast growing housing market reached its highest level, that's why we get unexpected results, in country with 4,043,726 families there are 5,859,726 dwellings.

Because of dramatic results, public authorities and municipalities decided to rethink their housing policies along with economic crisis, because old way of managing housing politics was full of problematic issues. As one of the solutions Portuguese government took 50 million euro from European Investment Bank for renovation 50% of living houses only for rent, through social programs.

To finalize last 100 years of modernity in Portugal, best way to observe is housing, because it reflects all the details of social and economical situation in country.

Portuguese revolution SAAL in 25 April, 1974 was a pioneering architectural and political experiment by designing housing strategies. It was best possibility for architects to take advantages for designing new solutions in housing. Portuguese architects became world-wide famous with new understanding in architecture, these steps was important. (Ricardo Agarez, 2014, pp. 293-295)

Table.3. Number of conventional dwellings and classic families, 1970-2011 (Source:book: "Homeland"
News from Portugal by Pedro Campos Costa and Alessia Allegri, 2014)

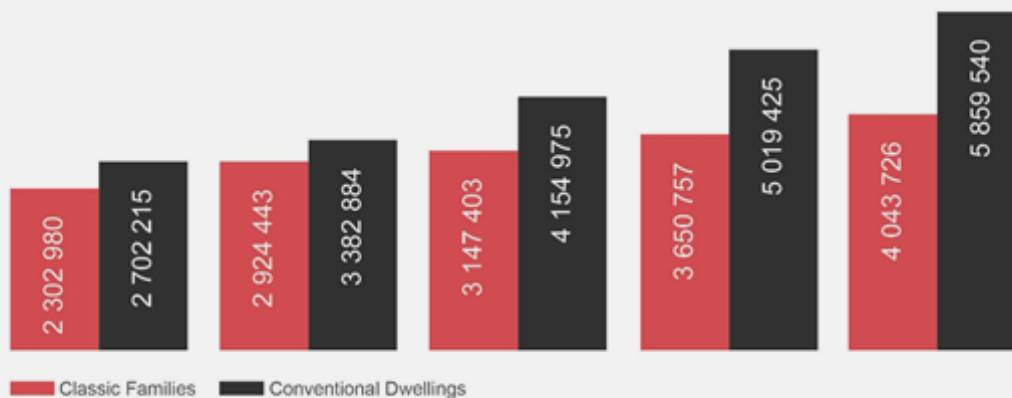


Table.4. Average family size(members), 1970-2011 (Source:book: "Homeland"
News from Portugal by Pedro Campos Costa and Alessia Allegri, 2014)



Table.5. Distribution of conventional dwellings to the form of occupation (Source:book: "Homeland"
News from Portugal by Pedro Campos Costa and Alessia Allegri, 2014)

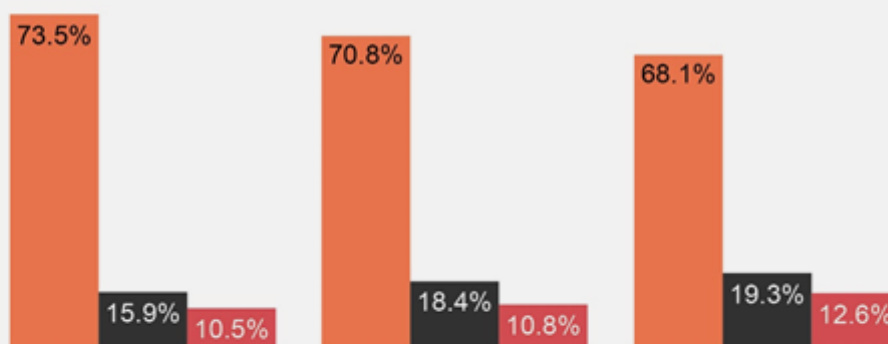


Table.6. Average annual household spend on COICOP, 2010-2011 (Source:book: "Homeland"
News from Portugal by Pedro Campos Costa and Alessia Allegri,2014)

Average annual household spend on COICOP, 2010-2011

5 958 €	Housing,expenses with water,electricity, gas and other types of fuel
2957 €	Transportation
2703 €	Food products and non-alcoholic bevarages
2111 €	Hotels,restaurants,cafes and similar
1277 €	Other goods and services
1186 €	Health
1073 €	Leisure,entertainment and culture
864 €	Furniture,decorative items,household appliances and expenses with household maintence
757 €	Clothing and Shoes
680 €	Communications
441 €	Education
384 €	Alcoholic beverages,tobacco,narcotics/drugs

4.2 Critical Relationship of Social Identity in Housing

It is important to understand that social housing is more than architectural and economical concept, but also there are meanings, relationships, feelings, between people, which creates social life.

Portuguese social housing politics is quite dramatic. In peripheral places, outskirts of main cities there is no regulations regarding building or material quality control, as well as lack of services makes situation more worst. There is no sense of security and comfort, which creates feeling that places like this, is out of normal society life. With this type of regulations, suburban part becomes separate from city, not consumable and not valuable, which is of course step backwards.

Another social problems found in this kind of neighborhood is categorized with two types, first is inside problem, from people that lives there thinks that they're not valid for normal society and second is people from outside who lives in central parts of the city thinks that these neighborhoods are dangerous and socially not pleasant. Result of this social mass is of course lack of polices, which needs to be overthought. (Jose Antonio Pinto, 2014, pp. 374-375)

4.3 Slums, Informal Habitation

It is hard to understand and discuss one definition of "Informal", but still there is many concepts to solve this informality and make it less problematic. As housing history also informal habitation in Portugal has same timeline, because problem was related with both theme together, caused by industrialization and migration.

Basically what is not planned and regulated by governmental policies we can call slums or favelas, places like this don't have any rules or regulation plans, process of construction is in general made by inhabitants themselves. Another interesting fact regarding to slums, is that beside housing needs people made other functions moder commercial oriented, like workshops, stores, groceries and etc.

Informal housing don't have any designing or building rules, it's always unclear process, after building a house it always has future square meter extensions, depended by needs of people.

As a result of informal habitation problems, was created project called SAAL , which was considering new housing solutions for thousands of people living in slums. Project started after revolution in 1974, by Ministry of Internal Affairs and Ministry of Social Equipment and Environment, key figure started this movement was Nuno Portas, secretary of Housing and Urbanism. After long negotiation process, nation had rights for legal housing. The SAAL project started practical movement, it was 169 operations in whole country, satisfying 41,665 poor families, it was massive building process, 2,259 new houses been built and more 5,741 was starting to being built. (Joana Pestana Lages, ATELIERMOB, Tiago Mota Saraiva, Paulo Moreira, Joao Baia, 2014, pp. 381-391)

1930's

Huge wave of industrialization led people to come in big cities like Porto and Lisbon, which therefor created unwanted but necessary for these people informal shelters.

1950's

As more people was coming in cities, as more property they needed for living, places like vilas in Lisbon, for example "Estrella D'ouro" located in Graca district or in Porto, ilhas(islands).

1962/66

These years are important basically for one thing, because of building the bridge on Tagus river, which connected, Lisbon and Almada, it became more easy for people to communicate. Bridge upper deck carries highway for car and on down level there is two railway lines. It was named "Salazar Bridge" but in future it will be renamed as "25 de Abril".

1969

In this period housing becomes more controlled and regular urban plan. Brandoa, located in Amadora municipality was first clandestine neighborhood in Europe, with area 2,39 km² and 15,647 inhabitants.

1974-1976

Years of revolution in Portugal, people are awaking from terrible ruling of Salazar's dictatorship. People are protesting more and more because of living conditions, slums and unofficial habitations are not anymore acceptable. Main protest slogan was "Casas Sim, Barracas Nao" which means "Yes to Houses, No to Slums".

1980's

If last years clandestine neighborhood was just few, now it becomes more spread around main cities like Porto and Lisbon. Basically this was a result of post-colonial immigration which brought over 1 million people from different parts of country. As cities were not ready to satisfy such amount of people with habitation, informal housing was only solution.

1993

Informal habitation or slums, became unwanted part of the cities, which was important to regulate and remove from urban scheme. As Portugal entered EU in 1986 this was reason of massive changes in terms of housing policies. REP program was focused for re-habitation of people from slums and new solution was big neighborhoods, concrete living blocks, which was rapidly building around Lisbon and Porto.

1995

Early accepted clandestine habitations, became hard and long process of bureaucratic mass. It was important step of legalization and qualification, all past built neighborhoods, which was quite long process.

2014

Last period of housing history, there was made multiple programs and actions to change regulations and polices for better urban planning in terms of informal living places, but still there is a lot of unsolved problems and many families are still living in slums and waiting for governmental actions.

5. Case of Lisbon, Rio Seco, Portugal

Photograph was taken in Rio Seco
(view from the Rua Aliança Operária)
Fig. 12.



Chapter 5. Case of Lisbon, Rio Seco, Portugal

5.1 Historical Context

Project site, Rio Seco is located in Ajuda district, municipality of Lisbon, between Belem and Monsanto hill. Place counts long history line from King John III up to present time. As it was massive earthquake in Lisbon at 1755 year, it also ruined several parts in Ajuda. District was becoming more and more popular, in terms of living, farming and in 1762 became part of the Lisbon municipality. In general habitation was single family houses with agricultural lands and windmills. In same period was started building of Ajuda Palace and also botanical garden, it was main residence for kings of Portugal, which therefor was popular place among people.

Place Rio Seco was classified as "Geo-monument" by prof: Galopim de Carvalho, his studies was important for further development of this area. After this studies, city council of Lisbon approved it. There is several outcrops like this in area of Lisbon but nineteen got status of geo-monument. This fact proves importance of this place. To have clear picture about Rio Seco, it is crucial to investigate urban development plans, how it reached final result as it is now. There are several urban plans which shows exact time-line of construction. From the beginning place was developing on both sides of valley that is separated with small river, which flows into Tejo river. (**"FREGUESIA DE NOSSA SENHORA DA AJUDA"** Ajuda history, www.jf-ajuda.pt/historia-da-freguesia/)

One of the first urban organization plan was made in 1911 year, showing one of the first settlements. On this plan we see that habitation is not too dense and there is still agricultural lands preserved. Most part of the site around river was green space without man-made intervention objects. Another exceptional side of the place is river, which crosses exactly in the middle of valley, and therefore creates good atmosphere for living.

Next plan which was made in 1950 year, it is significant visible changes after 39 years. At South-East side of the Rio Seco was made big interventions, new urban structure were formed on exciting streets, all of this buildings are several stories high living blocks. As urbanization was reaching little by little Ajuda district, agricultural lands was becoming less every year.

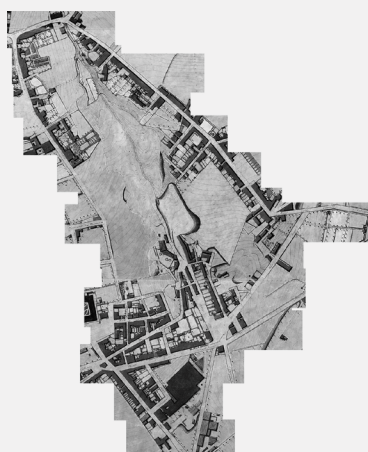
The most impacting interventions was made in 70-80th, which is visible on 1983 year's urban plan. Construction process was going without regulations and as a result it became dense habitation zone. Major changes after 70's at Rio Seco was "height", rise need of housing, because of industrialization process, made many Lisbon's districts to go in vertical direction, which therefor created diverse urban zones. Last period's one of the main issues was transportation and parking, as people living in this place will need place to stop their vehicles, it is quite big process to adjust old district and roads for modern transportation needs.

History about Rio Seco in terms of social interactions is best way to understand by reviewing old photographs, which was done in different periods. Photography is reality of that time, in which you can't hide anything, it expresses, culture, traditions and all the unique sides of people.

Fig.13. Lisbon map(Source: Google Earth)



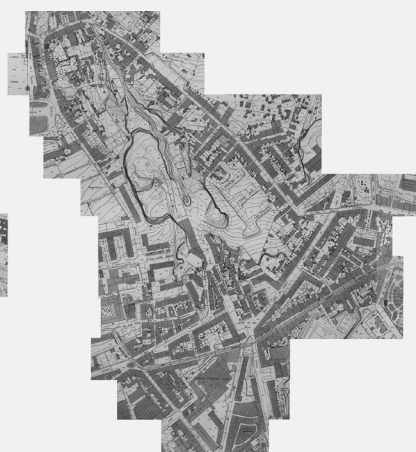
Fig.14. Map of Rio Secco(Source: Ajuda, in Biblioteca Nacional Digital).



1911



1950



1983



Fig.15. Collage for genius loci

5.2 Genius Loci, Identity of the Place

Genius Loci as a meaning is relationship between certain place and surrounded area, where this place is located. Uniqueness of the place can be considered with basically any kind of surrounding objects, weather, season or any other specific factors. It is everyday experience, and of course, cities, districts, streets, consist with this kind of places. One of the key factors of place's identity is that, same function, like a housing is different in every place and needs particular and local approach. Project site is located in quite complex and diverse place, which therefor needs careful study to understand its scale, limits and etc.

Rio Seco is bordering Monsanto Park, which of course is big advantage, it works like natural continuation, from park to coastline of Tejo river. As project site is bordering natural park of Rio Seco it is one of the important advantages of place, by connecting these green spaces, it creates big circle, Monsanto Park-Rio Seco-Coastline-Praca do Comercio-Av.da Liberdade-Parque Eduardo VII. This "green circle" is important for urban development and city's future, it will create natural flow of movement as for locals also for tourists, which of course is better for project site and also for whole city.

Present time Rio Seco is diverse habitation zone, with several types of social housing and of course without correct urban planning. As typologies of housing is different, it creates total mass, which therefor means losing life quality.

In architecture geometric organization of space is main tool, which therefor creates in-between boundary space. Martin Heidegger, who was german philosopher said: **"A boundary is not that at which something stops but, as the Greeks recognized, the boundary is that, from which something begins its presencing"**. By building in certain context, architectural boundaries or limits can be, walls, height and etc. but to look with same principles at nature it is same, just difference is that in nature boundaries are landscape, sky and so on. It is always crucial moment to find perfect balance or limit between man-made space and nature.

Talking about limits and boundary spaces, natural itself is perfect creation and man-made intervention places are always connected to nature. At first, human wants to define borders to get clear imagination about it, like playing rules.

As a result of this we're trying to create architectural objective space to fix our ideas and therefore limit between them. Nature is main guideline for this limit, dictates further continuation.

As a second theory, man tries to "define" nature with architecture, which will make place more perfect, to symbolize idea of it. This concept about nature and it's boundaries, humanity studies, to have clear image about life and existence.

Basically there is three main perceptions about relationship of architecture and nature: "visualization", "complementation" and "symbolization". By making intervention at any-kind of space, these principles are as a guide to find perfect "limit".

As any "site" on planet, it is general thought until architectural intervention that after becomes "place", it can be building or any other man-made object. General idea of architecture is to show unique sides of place, to make environment more meaningful. Another important factor is time, because some places can change really fast, but character and "genius loci" can be still same. Concept of place is never fixed, it always changes with time.

Project place of Rio Seco is good example how time and man-made intervention is changing it, but there is still some character preserved. As it is canyon valley created from water flow, there was small river hidden in the middle by car road, done in near past, these changes are visible on historical plans.

History can be one of the ways to find this old character of the place which is of course important for place to have better habitation zone. There are some characteristics of place, which is creating "genius loci" of the place, our mission as architects is to find these unique sides and expose them on better side of reality. (**Christian Norberg-Schulz**, June 15th 1991 (first published 1979), pp. 8-13)

Upper mentioned tools and thoughts, basically are foundation for creating architecture language, that will define existing place. As famous architect, Mies Van Der Rohe said: "Architecture is a language and I think you have to have a grammar in order to have a language. If you are good at that, you speak a wonderful prose, if you are really good, you can be a poet".

Fig.16. Drone photo of Rio Seco (Source: Prof. José Aguiar)



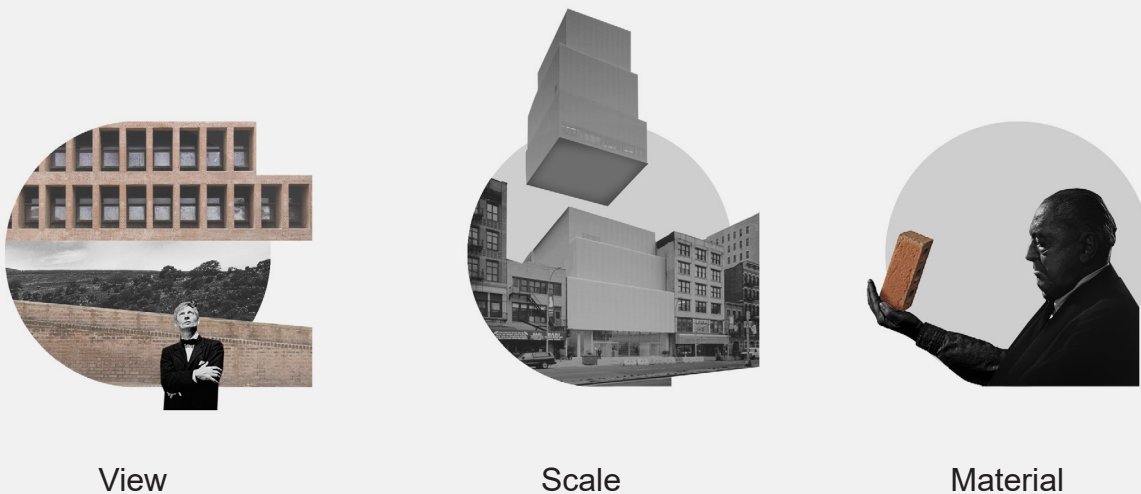
Fig.17. Drone photo of Rio Seco (Source: Prof. José Aguiar)



Fig.18-23. Photos of Rio Seco



Fig.24. Collage for Intervention Methods and Language



5.3 Intervention Methods and Language

Methods of intervention should be simple philosophy, like a language for complex problematic place like Rio Seco. As nature limit has powerful influence at this place, it is important to achieve balance between them, using tools like: “view” “scale” and “material”. These are basic three principles which project should follow. Already itself site is quite diverse zone in terms of housing, which means to find balance and connection will be hard.

“View”, it is of course important aspect for any urban planning and specially for cities that are situated on hilly terrain. This factor was always one of the crucial thoughts starting from the ancient cities up to now, it is a urban window. Specially city like Lisbon that is almost every part of it is hilly terrain, should adapt to have this character and most beautiful is that this city lives with it, places like “miradouros” are all over Lisbon, which gathers a lot of people, not only locals but also tourists from different countries. Districts like Alfama and Baixa Chiado is basically full of places like this, almost from any point you have amazing view to city. This character is pretty unique, which therefore creates and forms future urban development.

As most of the Lisbon, also Rio Seco is located on hillside, which is facing towards river Tejo. Present time important views are lost, because of dense urban planning, basically there is no regulations to reshape this part of the city. Also as another big advantage which place has is a massive urban park, it is also one of the important views for people living here.

Project site is located in South-West, alongside the whole street, which therefore borders park. Present moment, while walking on the street, view and contact to park is totally blocked. Proposal of new project is to open whole ground level alongside the street to have visual contact to green space, which will guide you into park.

“Scale”, as another important factor for designing architectural space is closely related to view and therefore together creates ideal space as for living also for public activities.

In general scale in architecture is important, it creates city’s unique character. Many architects was inspired in past by scale, for example, Etienne-Louis Boullée, Albert Speer and so on.

basically all this means that scale is tool of expression, for some it can be expression of power and mighty as for others, comfortable and safe space, that’s why it is important to find correct scale until designing architecture.

In terms of scale Rio Seco from 70-80th was built multiple stories high, social housing blocks, which of course had its diverse scale, it is a perfect example South-East part where project site is located. Every part of this site is built in different time periods and that's why scale is dramatically different from each other. Going in vertical direction when you have hilly terrain, it's quite risky and delicate work.

Project contains two general volumes, which adapt scale in every part of the site. Walking from North to South on main street, scale is also changing according to landscape and surrounding urban area. As park is a limit of the place, it's quite important to make good adaptation. Project is developing in a horizontal way, which therefore is following landscape along the street.

"Material". Choosing material for project depends on what kind of result you want to achieve, make separation from environment or opposite, integrate in it. Materiality in architecture can be expression of concept, emotion and so on. There are many materials and technologies that emerged only in 21st century, specially technologies, because there are thousands of ways to use old materials in a new way, therefore making new architectural feel and result.

Rio Seco is not only diverse place in terms of habitation, but also it is place with multiple construction materials and methods. Mainly this result is caused by different constructing time period, which of course was not regulated by government. In present time materials are used: concrete, brick, stone, wood and mixed, as there are many informal habitations, building process is not planned and are used different kind of materials, applied by locals themselves.

As project contains two main shapes, it is used two different materials. For upper shape, which is housing, it's used perforated white composite material and therefore it will be as a shaders for apartments. Look of the housing building will be one white shape, that is positioned on upper level, like a floating and leaving public space. Down level, which is parking and library space, is made with brick, material that is popular from ancient times. As brick is made with clay, it can be found and manufactured almost anywhere in the world, which makes also cheap material for construction.

Main reason choosing brick, is that it has unique character of adapting as urban also natural space. It can change tone on sun, rain or other exterior weather factors. Vegetation can grow on brickwalls. There are many varieties and methods as for color also cladding of brick, which makes it usable in multiple ways.

There are many ways of brick cladding techniques, some of them even makes normal wall more resistant to natural impacts.

Chapter 6. Photoessay and Conclusion

6.1 Photoessay of Social Housing in Lisbon, Portugal

This chapter is related to photography study and investigation of social living in Lisbon, Portugal. Relation between people and architecture(housing) is always interesting theme to photograph, there are many details, which is visible in close examination, only thing you need is camera and courage to go closer, more close you go, more you will see. These are photographs taken from 2014 to 2016 years.

Fig.25-30. Photos for Photoessay of Social Housing in Lisbon, Portugal



6.2 Conclusion

Dissertation refers to social housing in Europe, we saw how it started and why there is many problematic issues regarding it, specially in Southern part of Europe. By making investigation in few best examples of EU countries like, Denmark and Sweden showed one of the best working models in housing sector. Also South Europe's example, Spain, that is neighboring Portugal, was perfect to see, which therefore showed how similar can be problems and solutions in one region.

From visible examples of social habitation of course its better took at examples which are already built and works in real life. Study architectural projects, showed different ways of housing solutions, which on the other hand helped in for final project.

Upper mentioned theme's were basically foundation for case study project in Rio Seco, Lisbon, Portugal. Going through Portuguese history of social housing and present problems, image became more clear. As cities were growing, it caused many problematic issues, specially in capital, Lisbon. Most dramatic changes happened in 70-80th, when economy was thriving many places and specially outskirts of Lisbon, became dense habitation zone. Referring to same topic another type of social living is informal housing, which is quite popular as in Lisbon, also all over the world. Case study project in Rio Seco, Lisbon is basically result of almost all types of social living, it is crucial to understand it's historical development stages, and which became clear after investigating old maps of this district. As in whole Lisbon, problems in Rio Seco are same, diverse habitation, informal housing and scale, majority of this facts happened in 70-80th time period.

In more closer examination place revealed many character or "genius loci", which therefore means sole of the place. This kind of approach helped to understand why it is different from all other parts of Lisbon and what are these features which can be used for future, it can be natural part or architecture.

For finalizing step after all investigations, showed architectural language to follow. As place for intervention is limit to park, it was crucial moment making project. Following three basic ways created final project: "View", "Scale" and "Material".

Last chapter refers to Lisbon's unique character, which is described by photographs. Reviving present period moments is good way to see all the details hidden from normal view and of course photography is one of the best ways to see truth.

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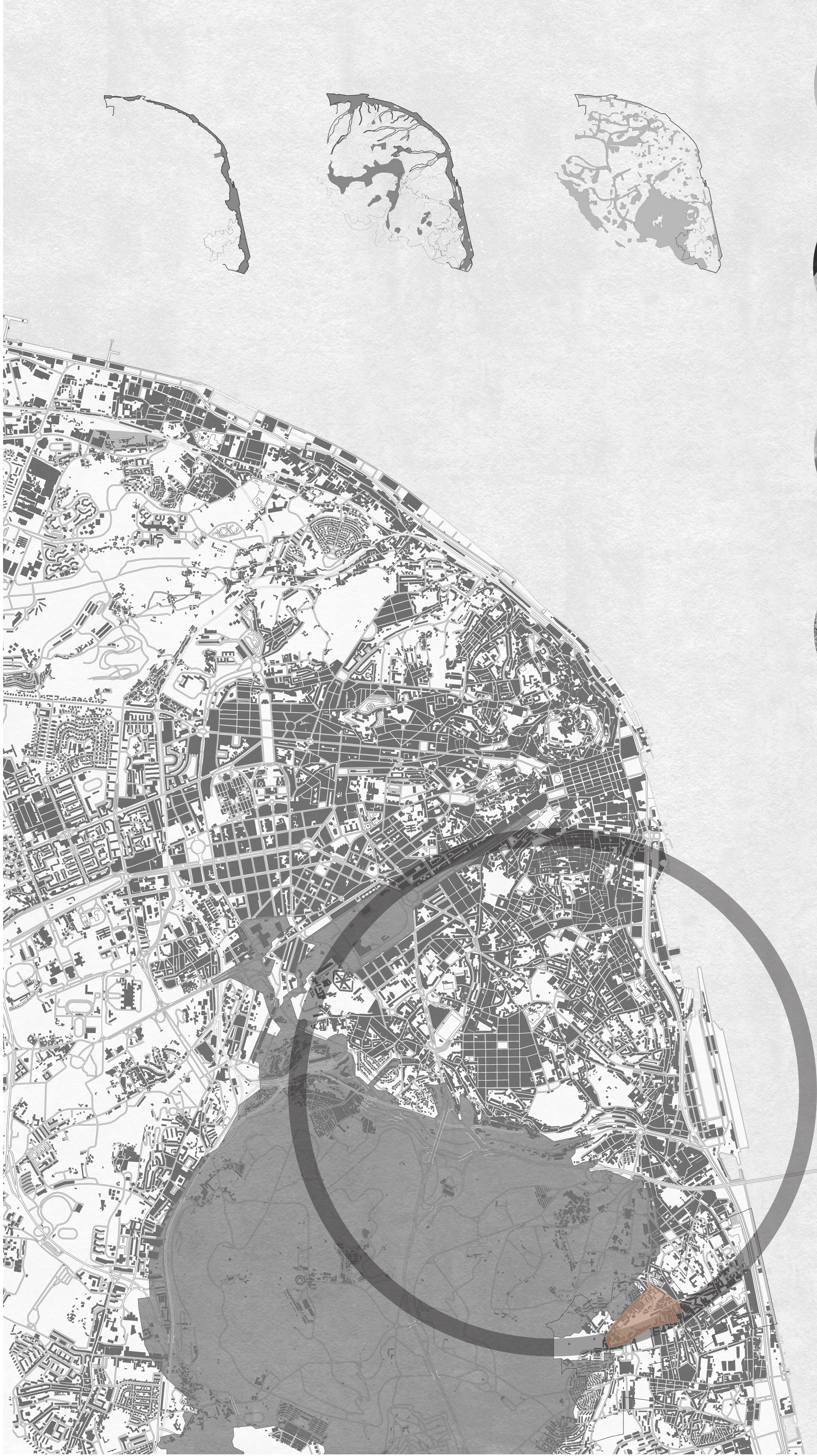
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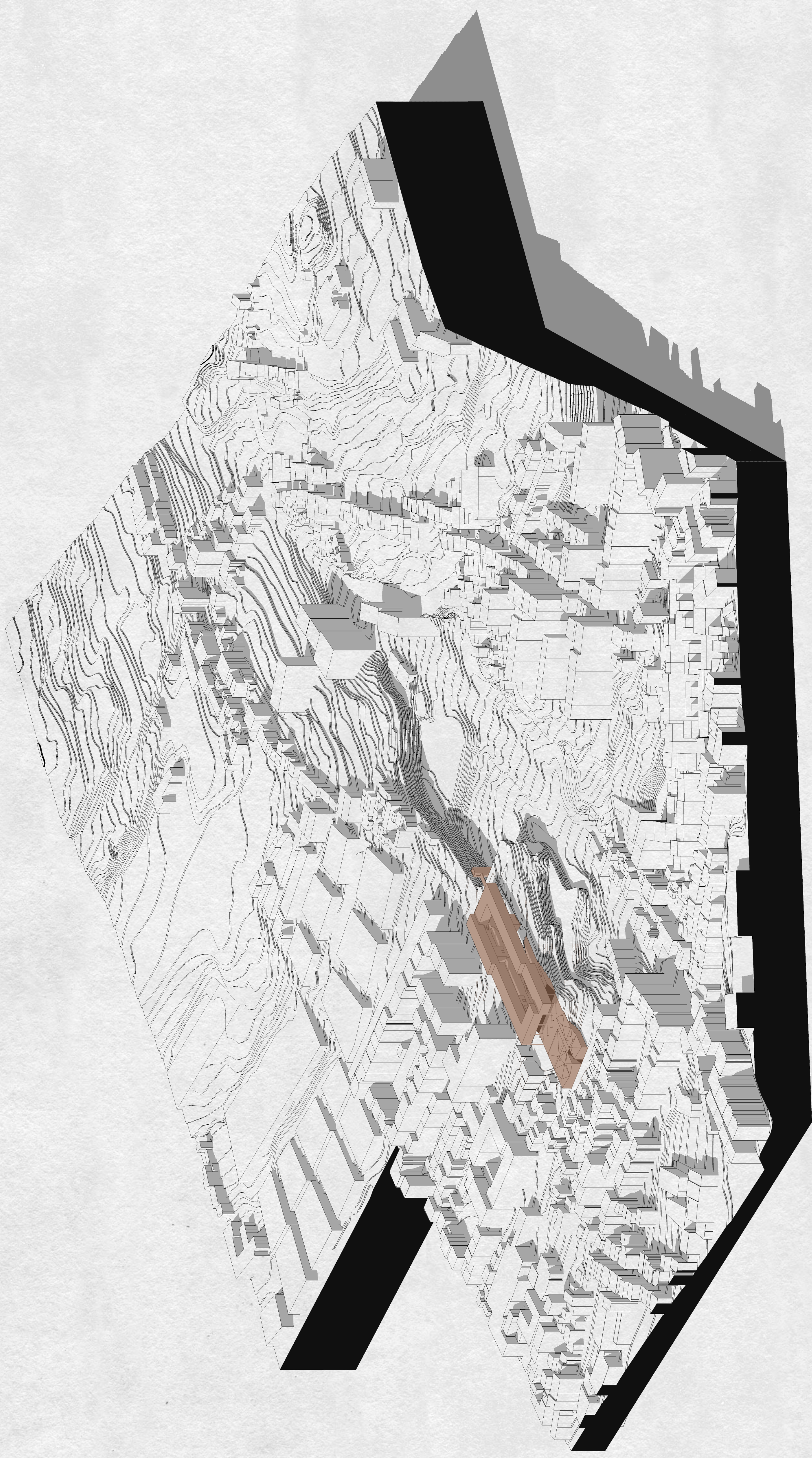
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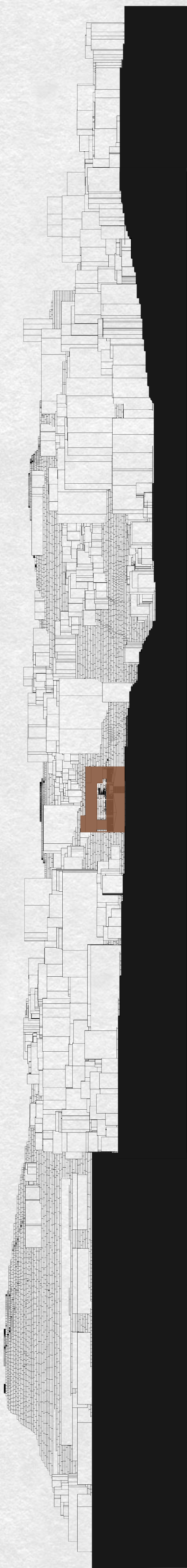
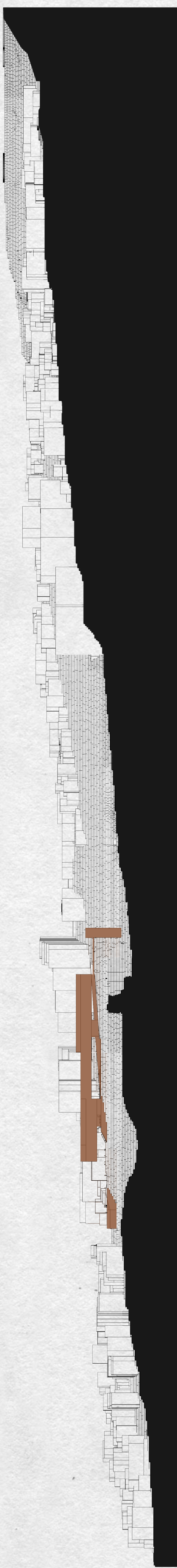
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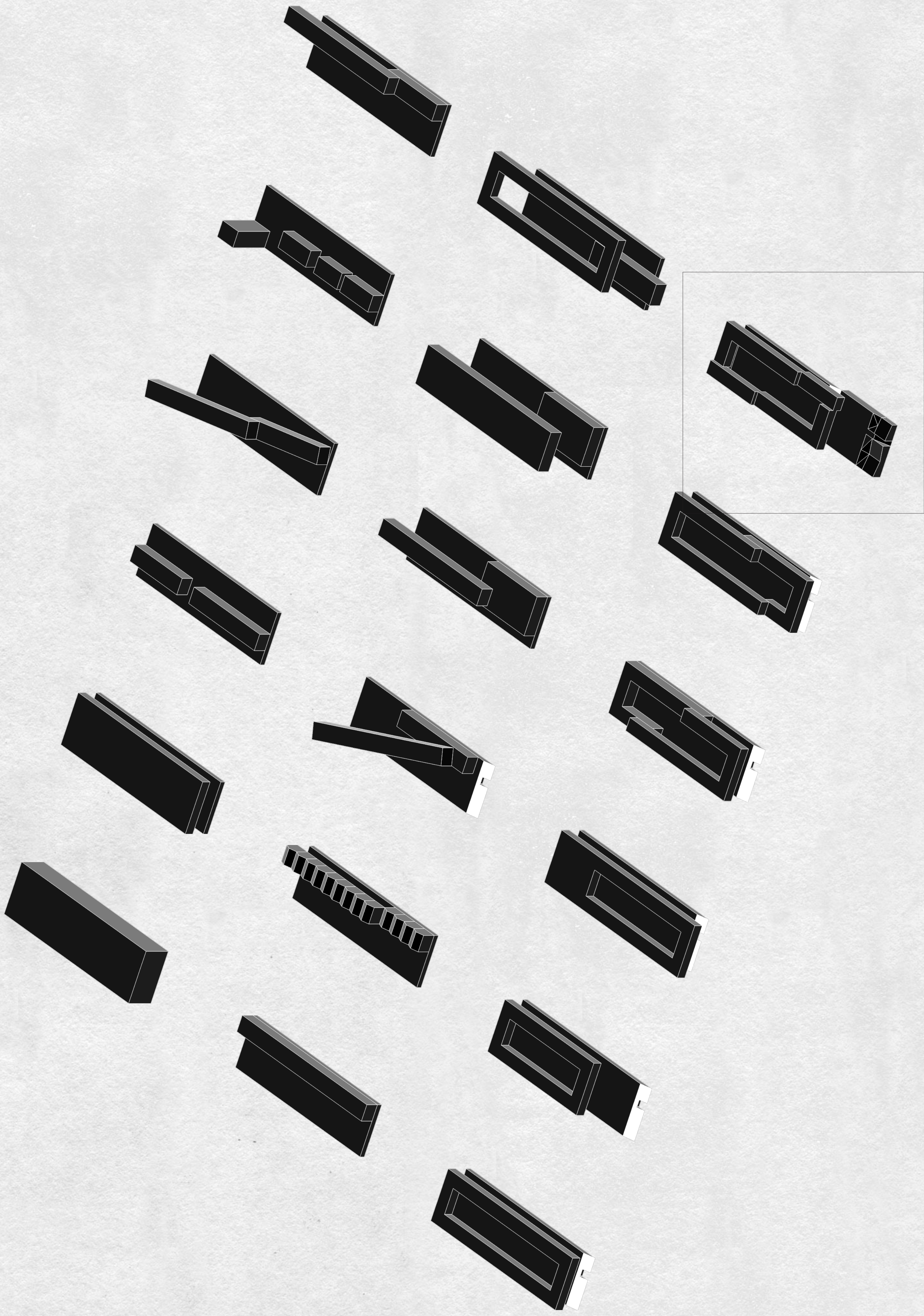
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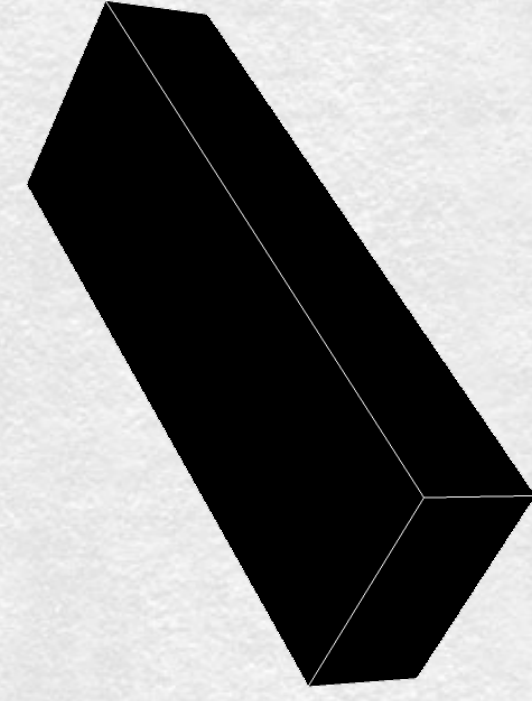




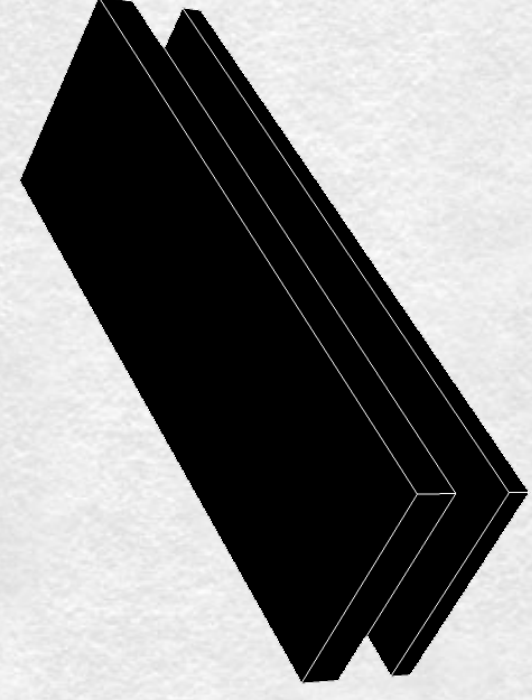




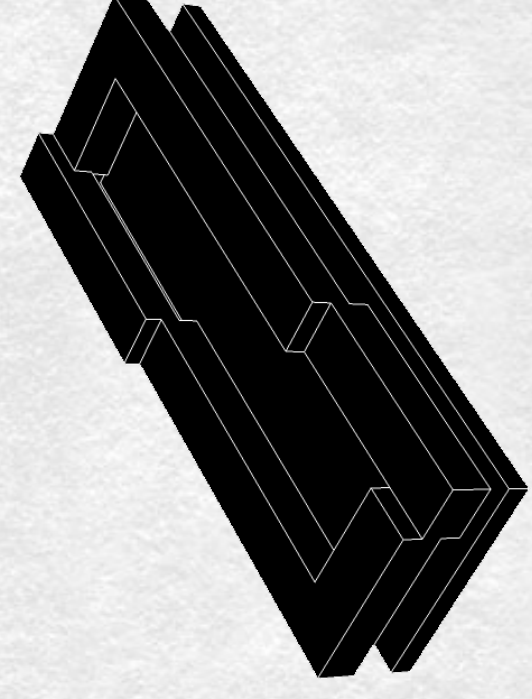




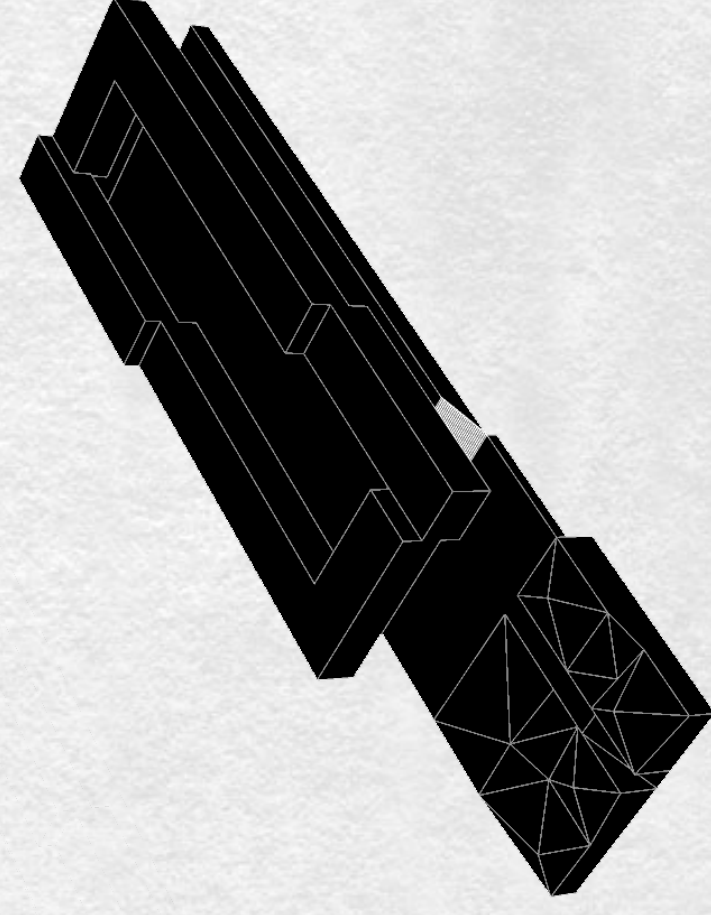
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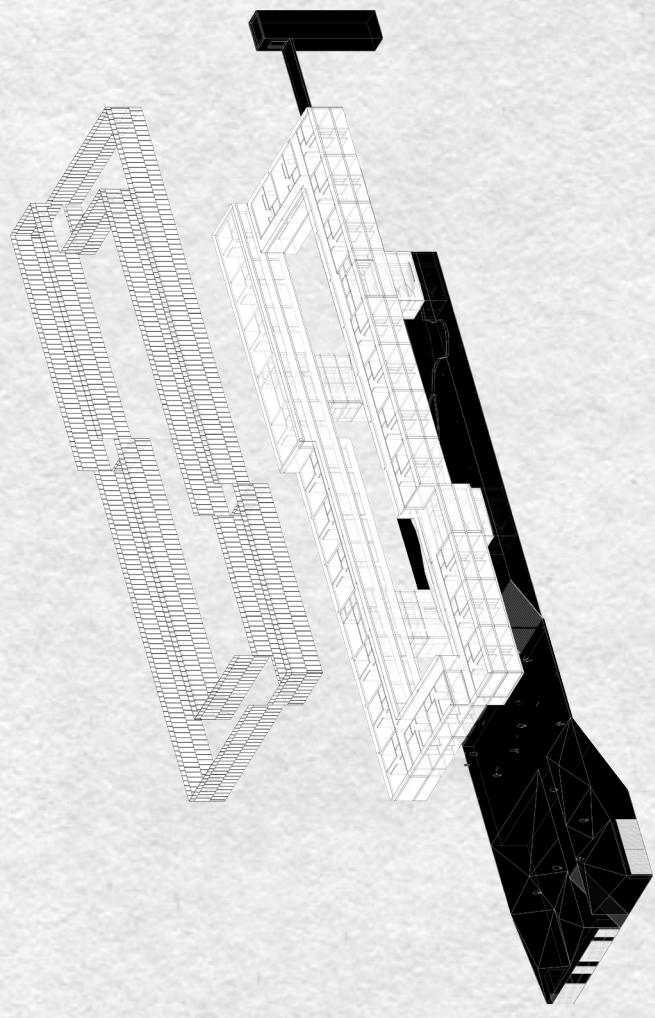
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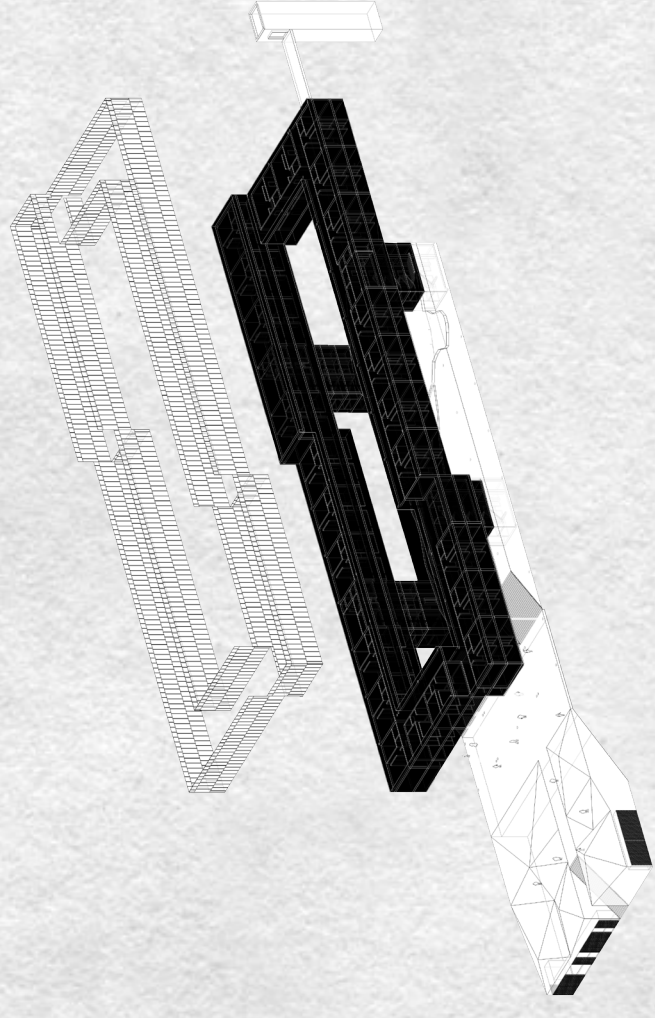
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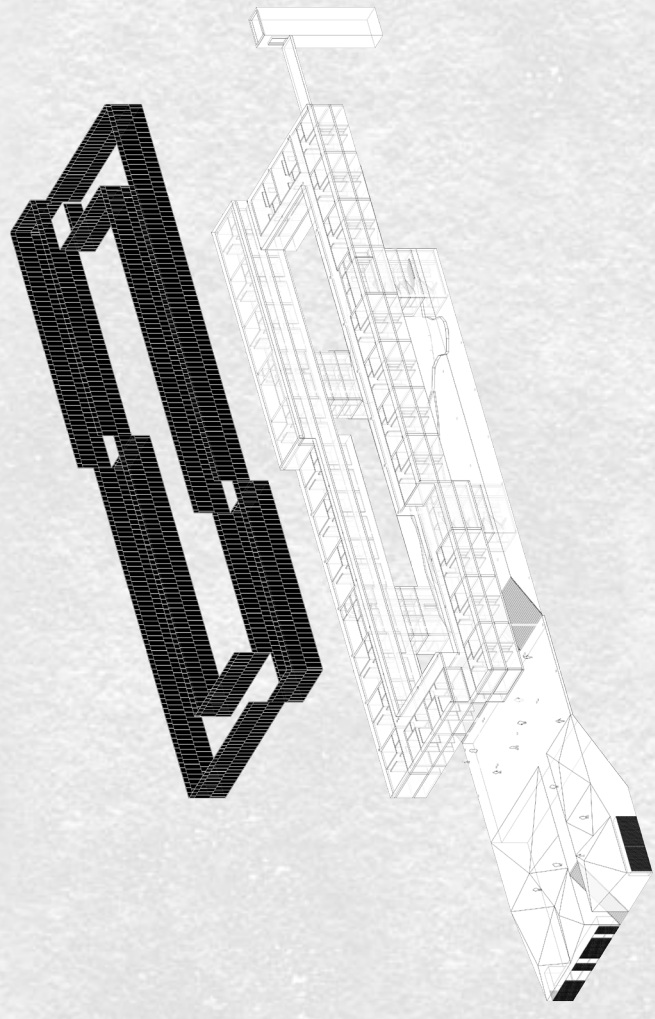
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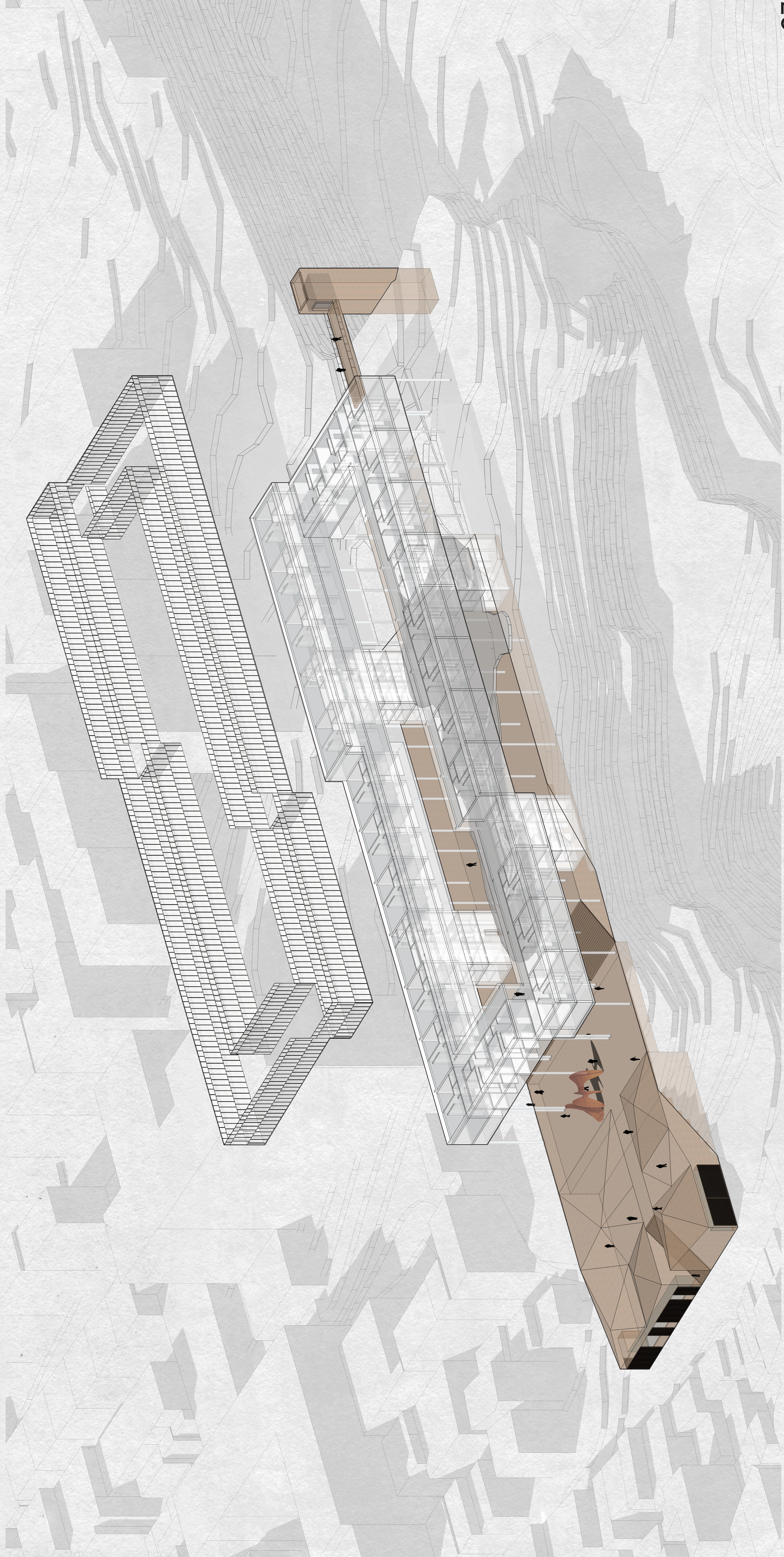
Library, Public Space, Parking, Elevator to Park

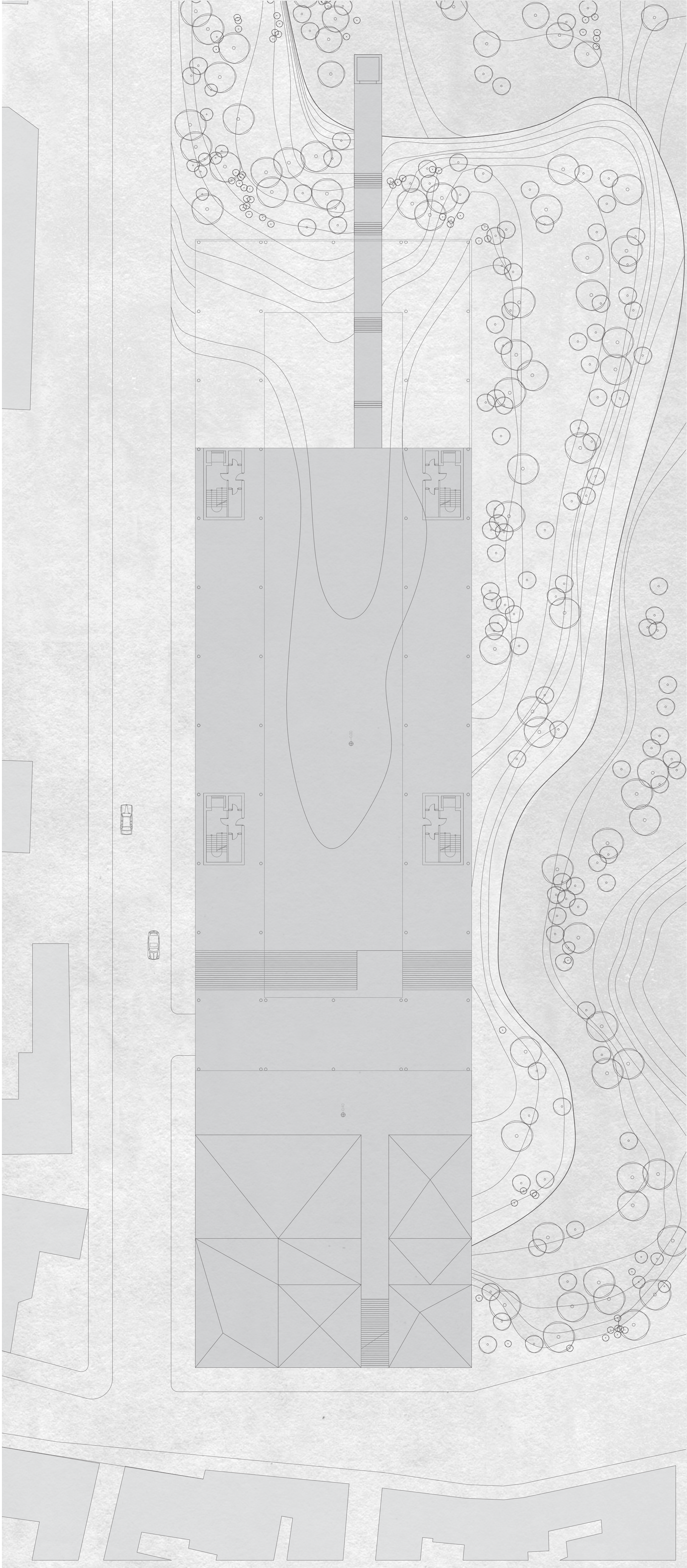


Housing, Apartments

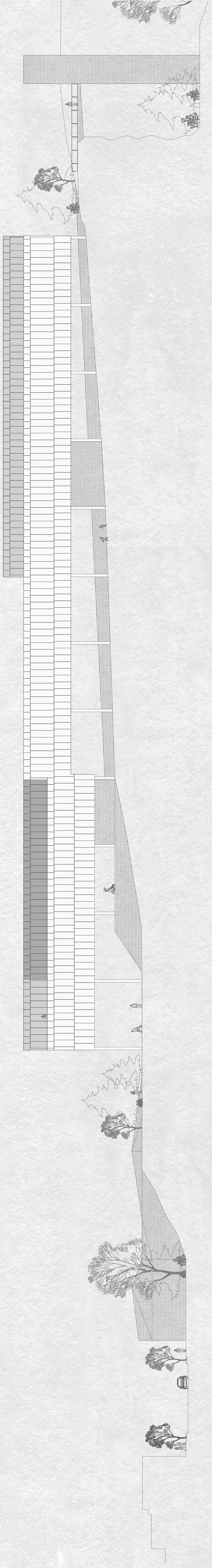


Facade, Perforated Panels

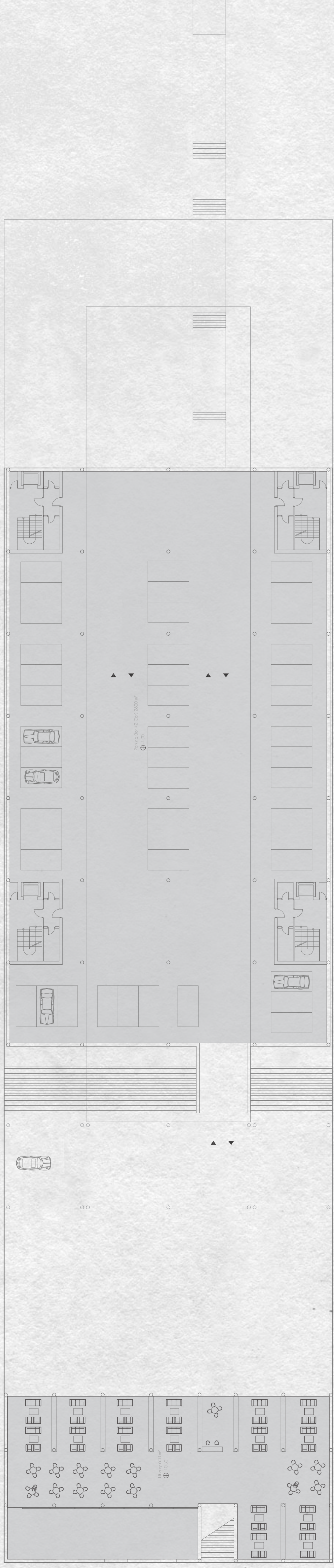




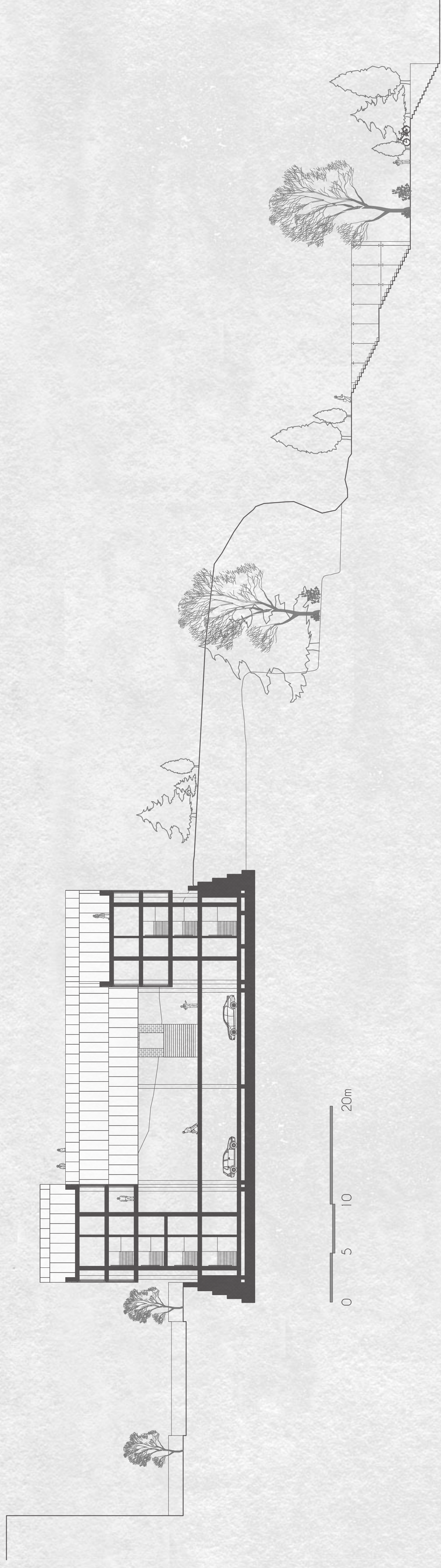
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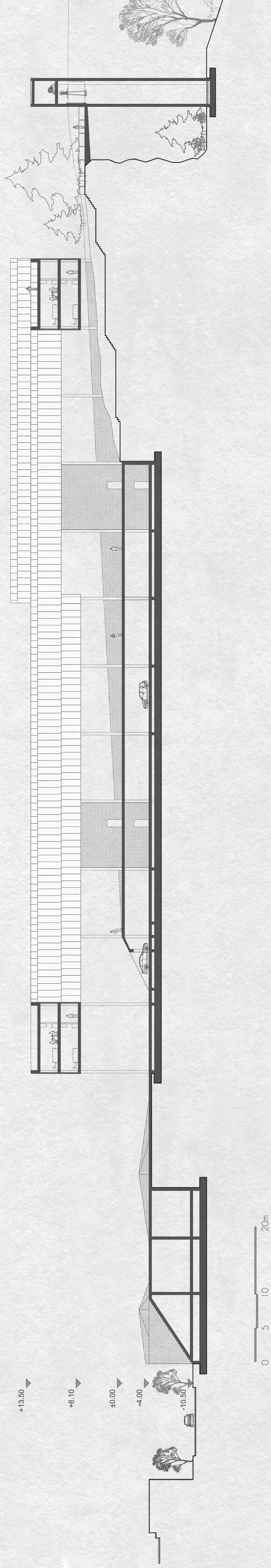
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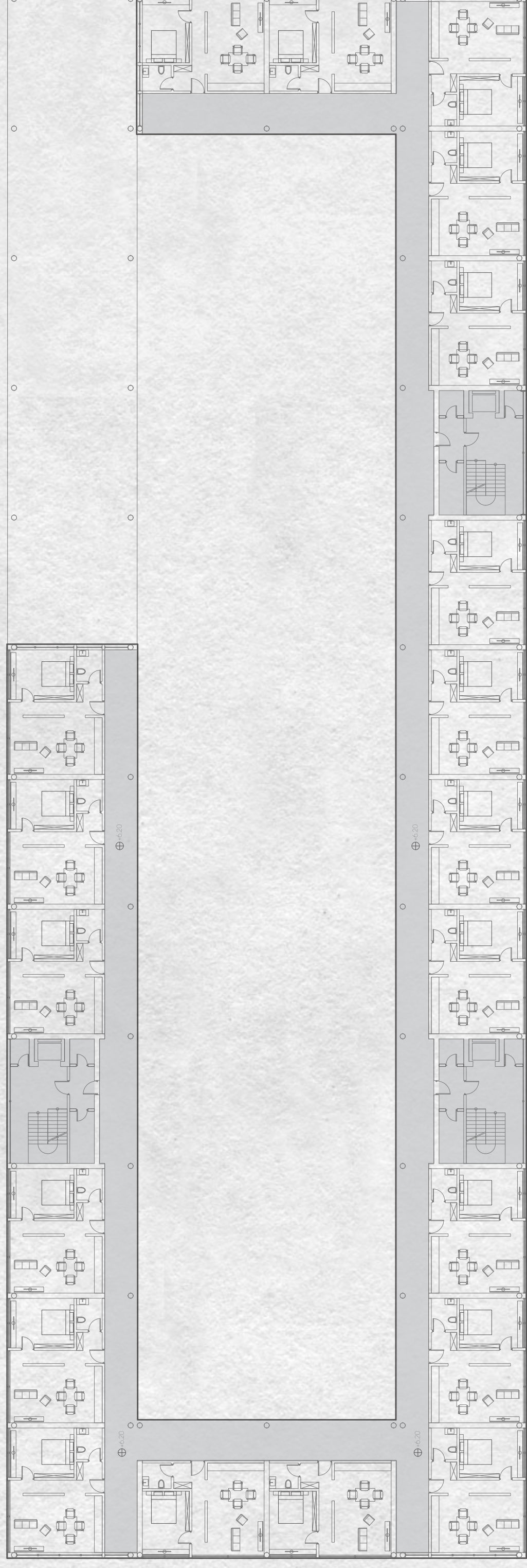
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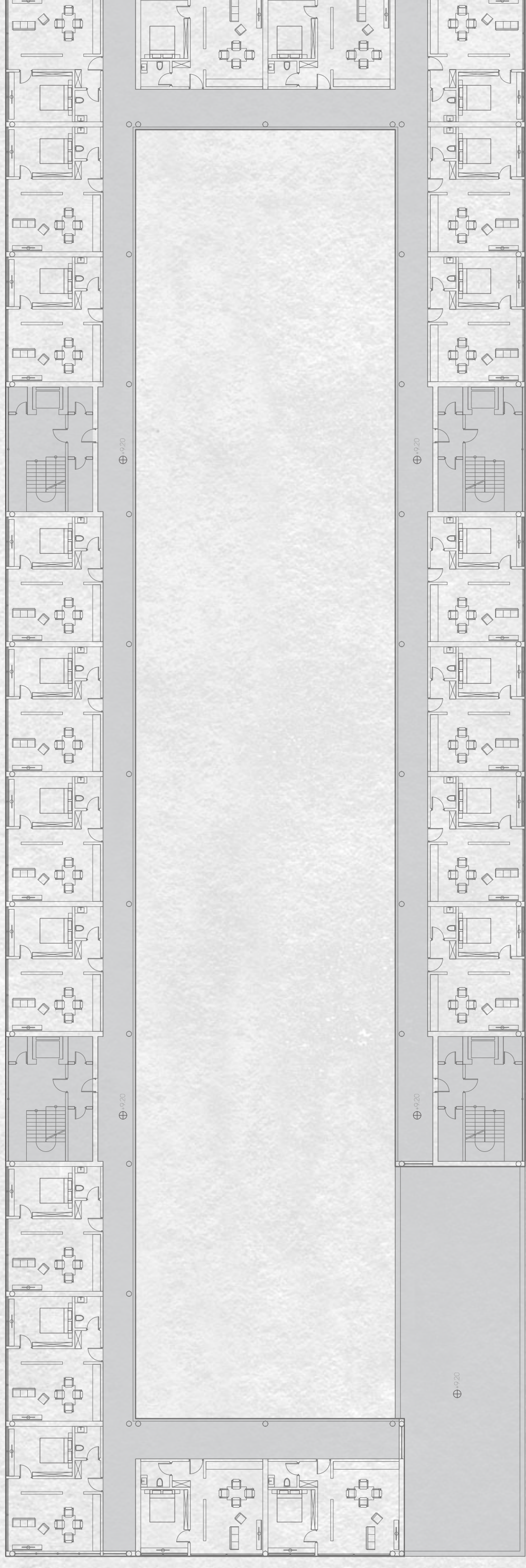
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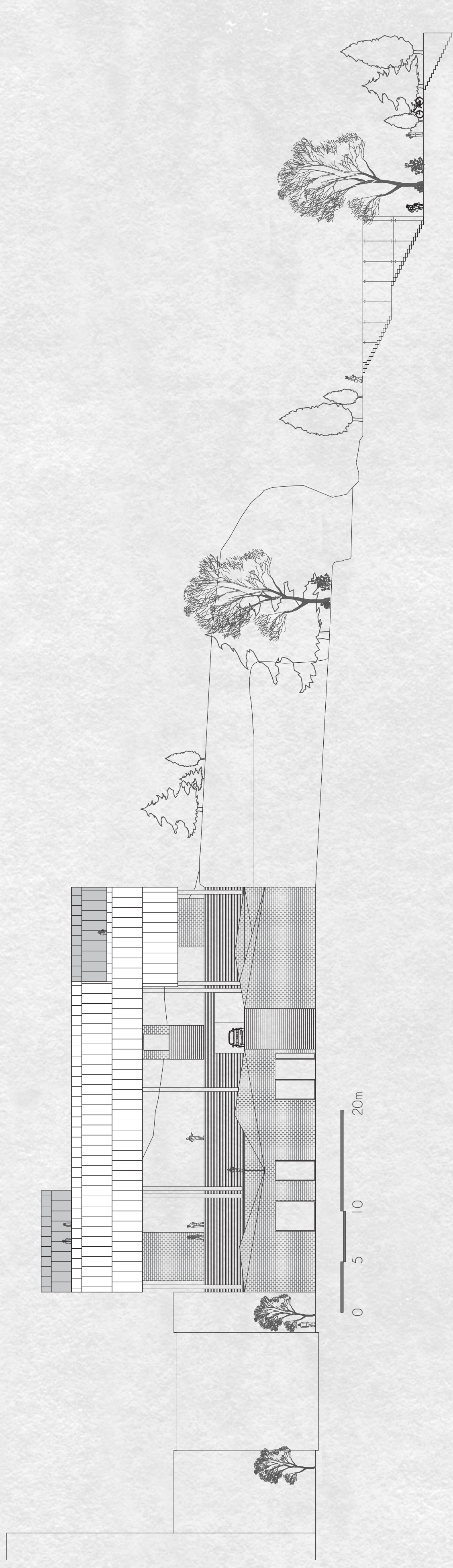
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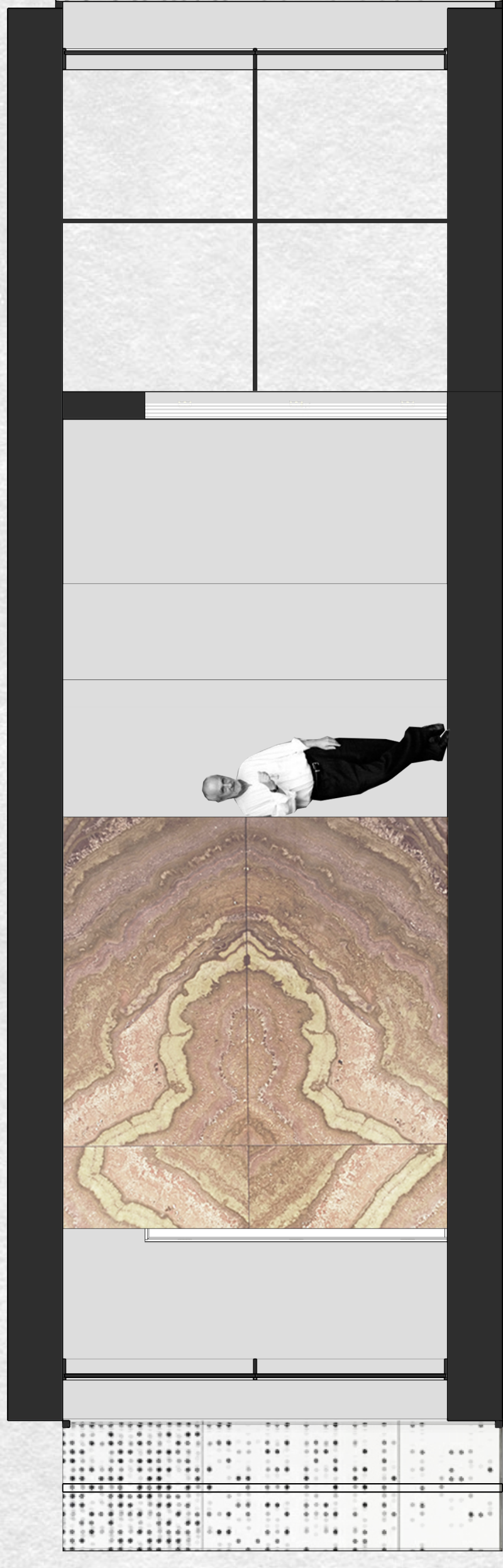
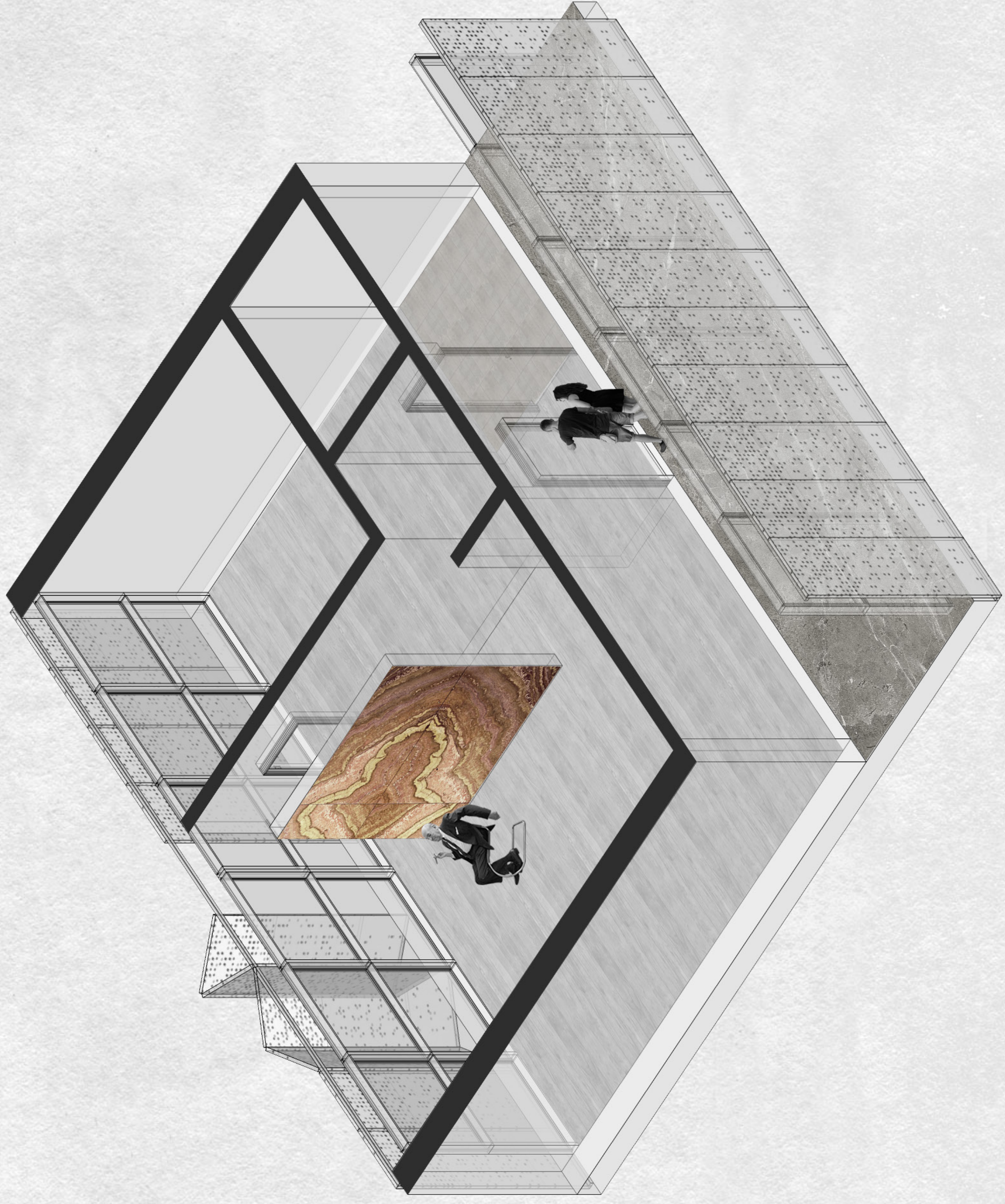
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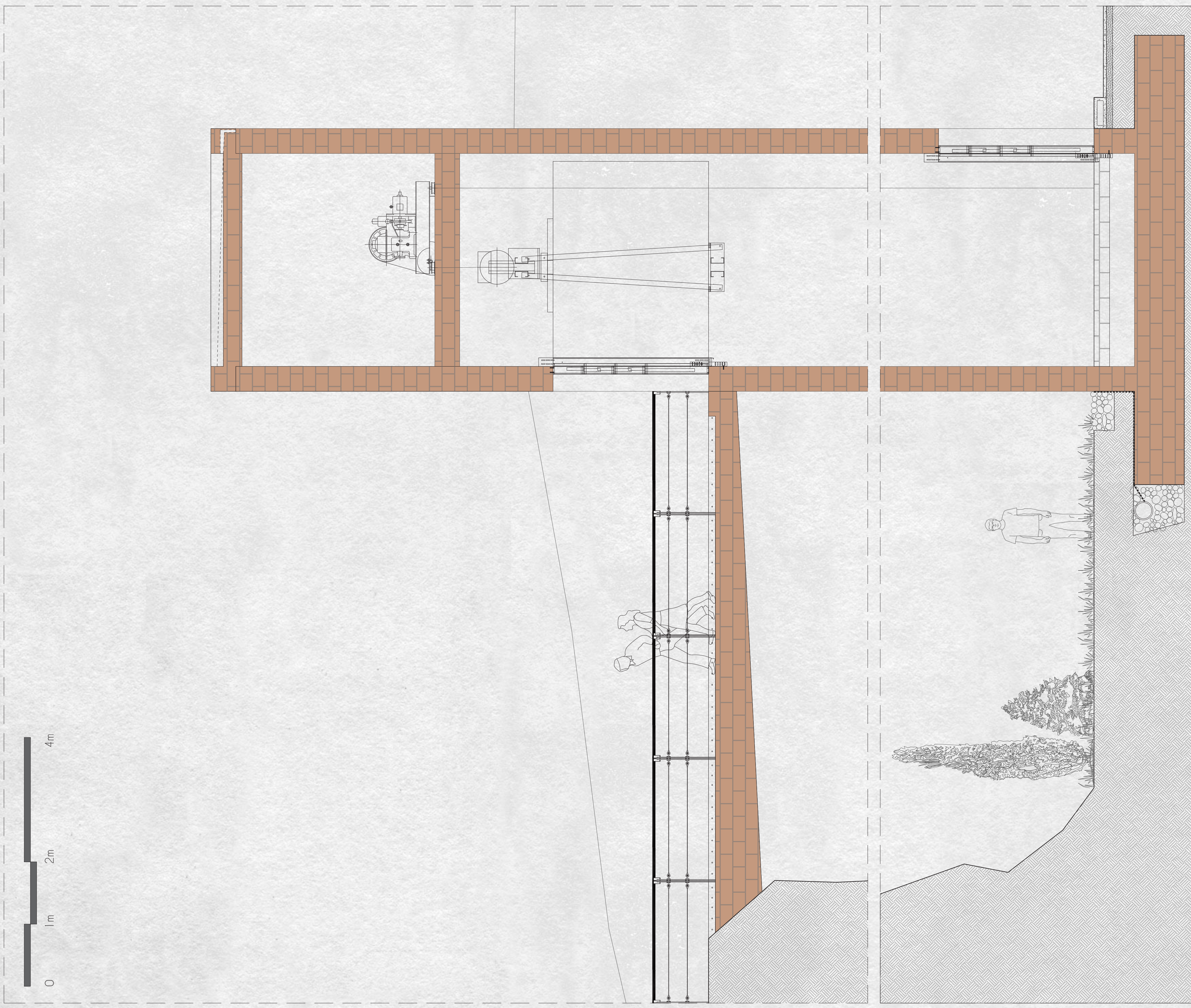
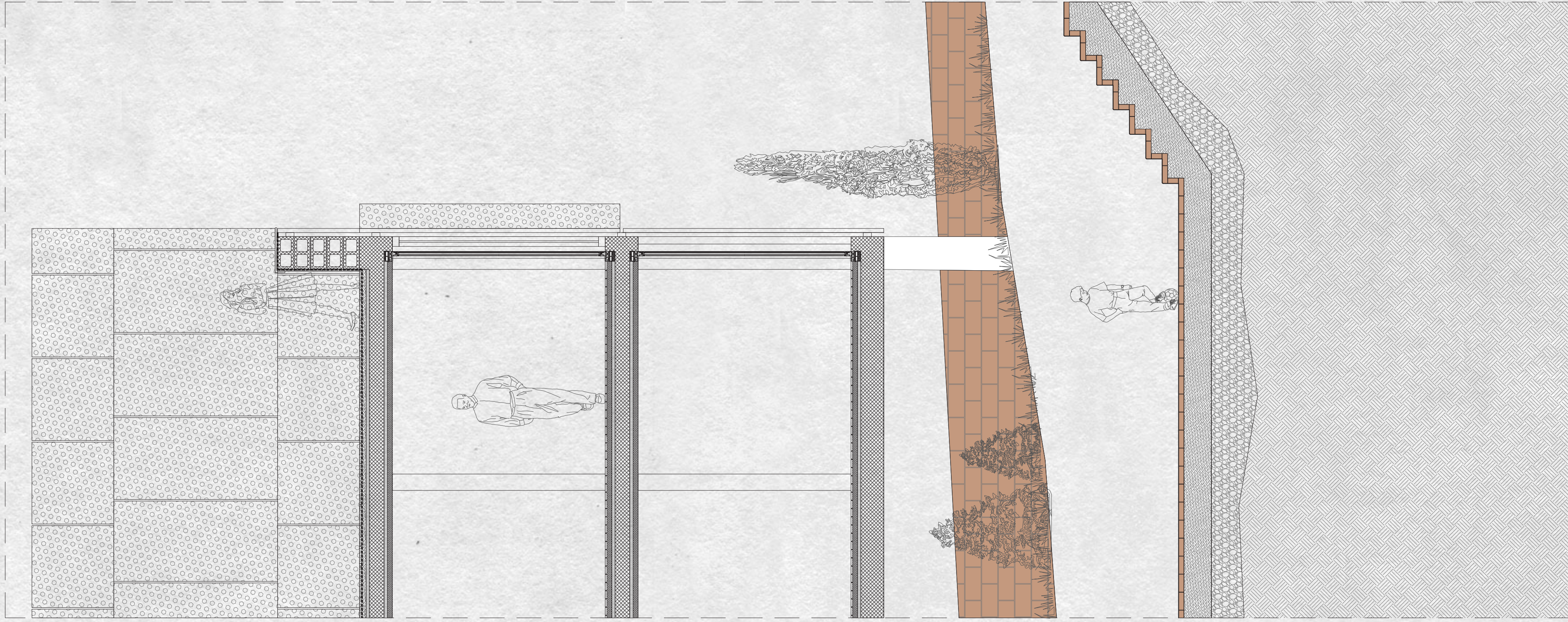


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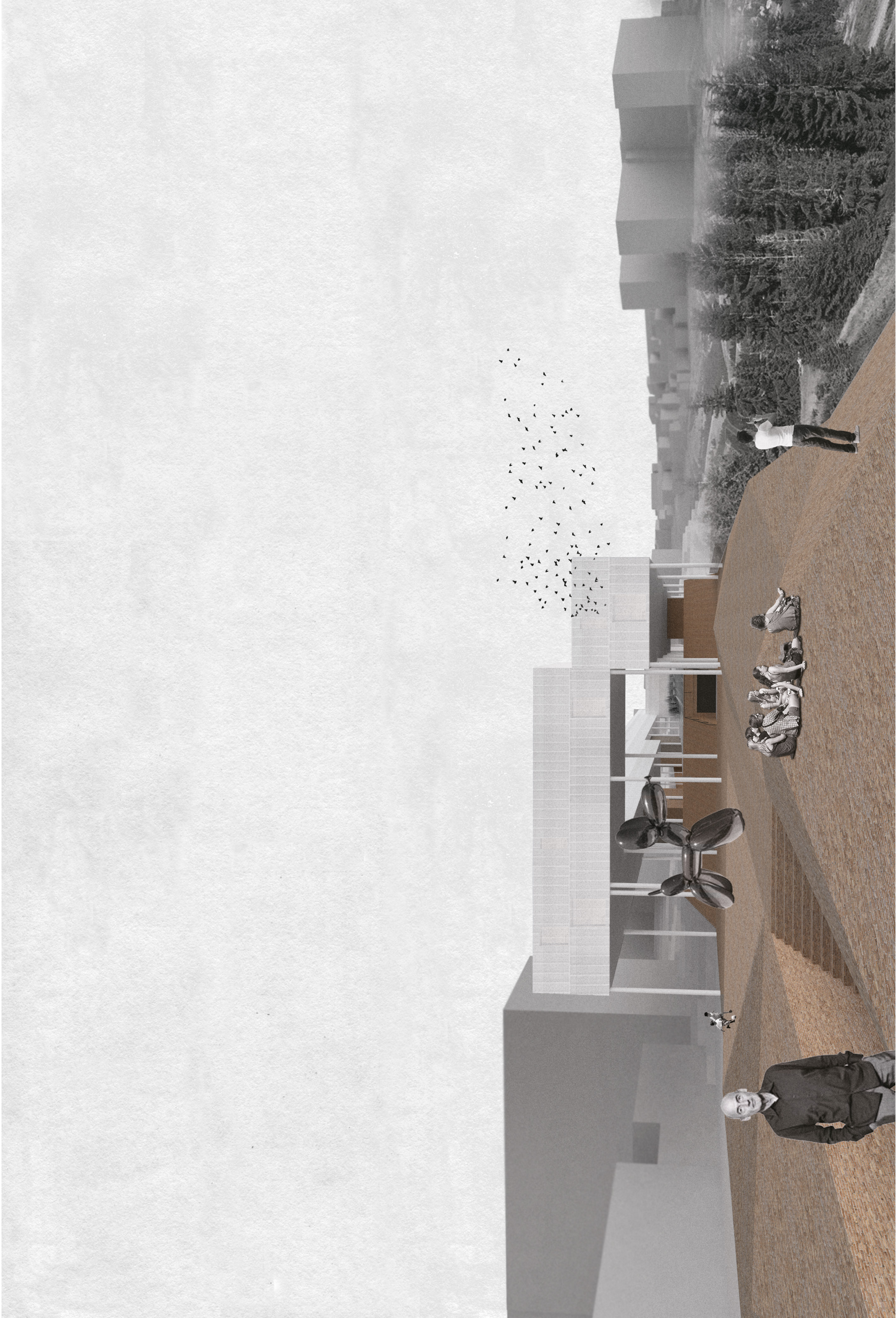


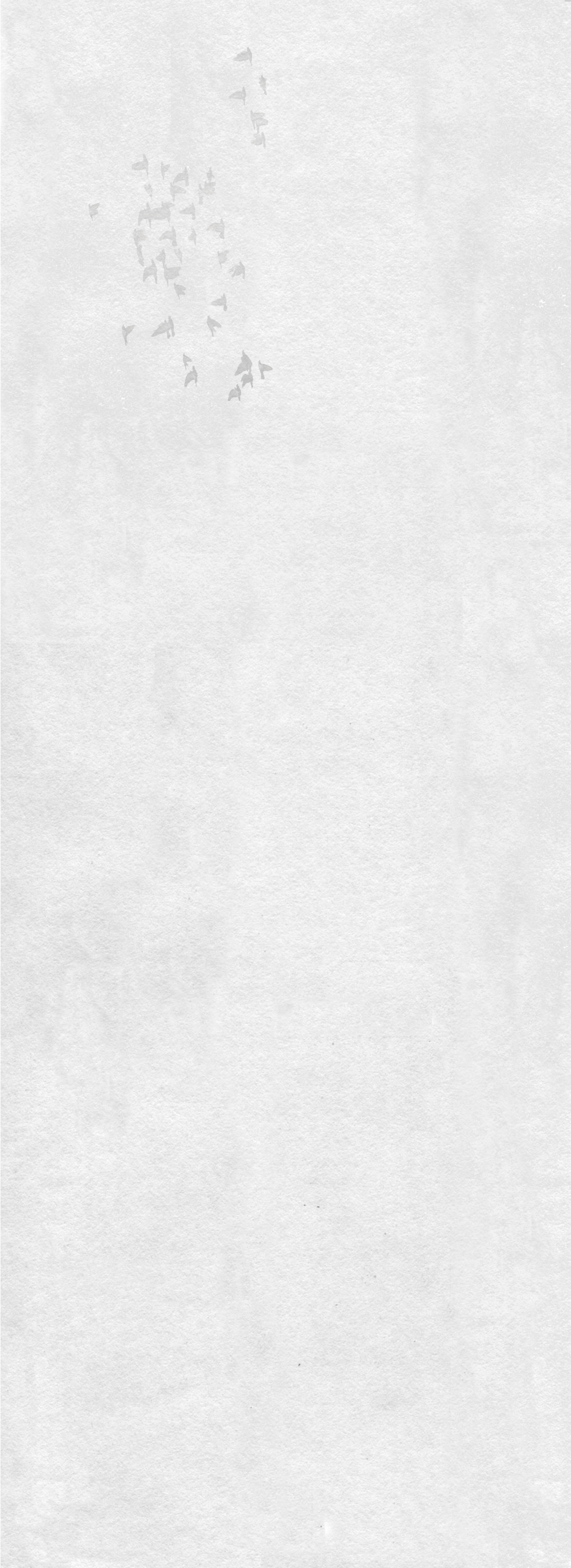
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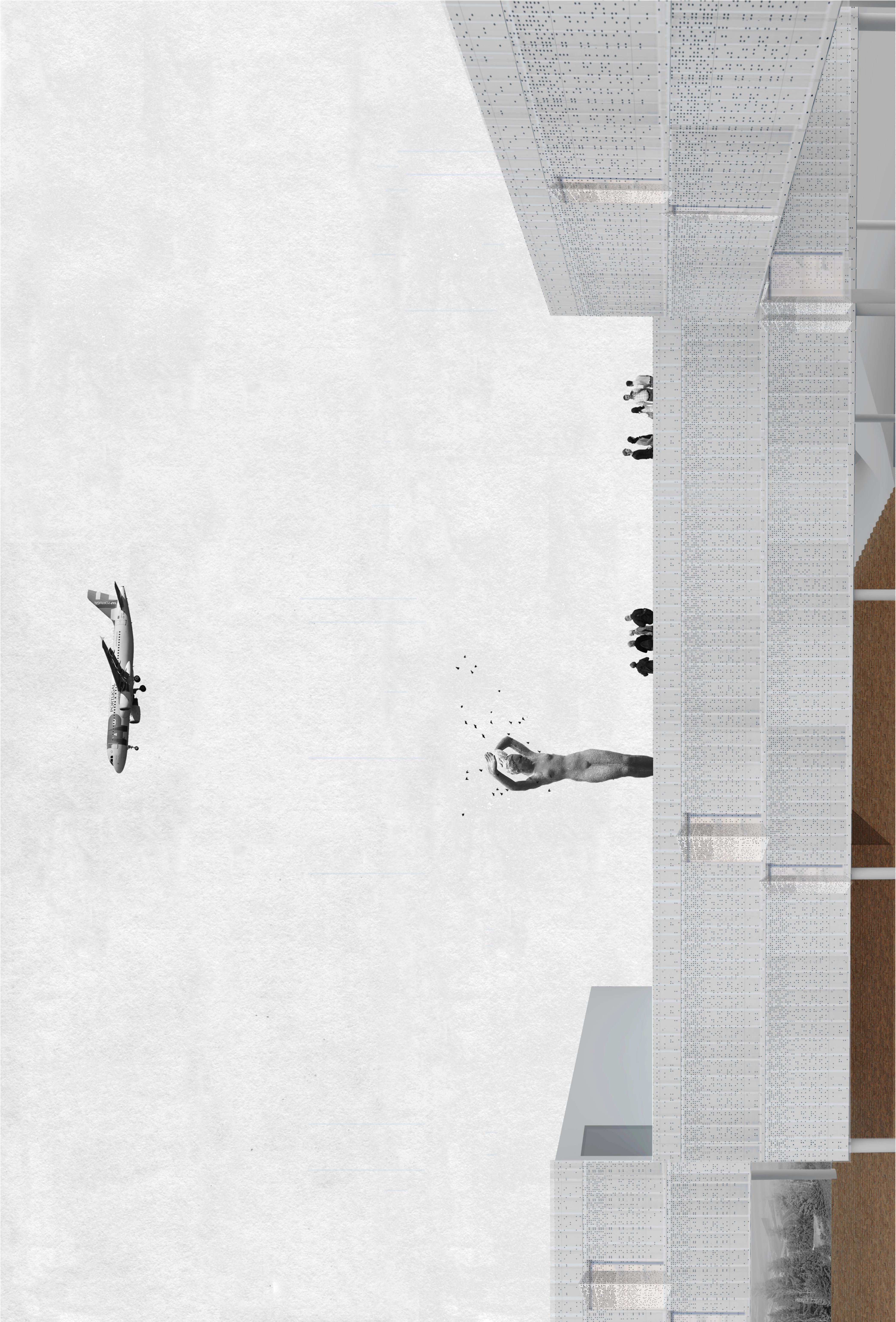




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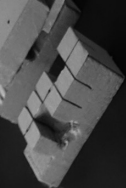














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